BUSINESS MODELS IN THE PUBLIC DOMAIN: 
THE PUBLIC GOVERNANCE CANVAS

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1. Introduction

Business model patterns (generally referred to as templates or canvas) emerged to meet the needs of professionals in the field of information technology to understand the business and their organization in order to develop more consistent and market-oriented IT solutions (Chesbrough and Rosembloom, 2002).

The management literature realized that this could serve other purposes: lead to a more comprehensive and integrated understanding of the business and its logical parts (Zott and Amit, 2008; Casadesus-Masanell and Ricart, 2010); strengthen or improve strategic planning, even replacing it (Shafer et al., 2005); provide a simpler view for the purpose of preparing a business plan; in short, provide a tool for improved understanding, mapping and sharing the logic of value creation in organizations or networks of organizations (Osterwalder, 2004; Amit and Zott, 2001) - given a context of increasing complexity in which business models now require coordination of a large number of stakeholders through integration of businesses, processes, information systems, distribution channels and people.

A good example of such a tool is the Business Model Canvas (Osterwalder, 2004), which helps managers to take a holistic view of the process of value capture, creation and delivery carried out by the various elements and stakeholders that comprise the business of an organization.

In parallel, a similar movement took place in the field of public governance in the form of results-oriented management models, involving emerging issues such as quality and organizational capacities (Mintzberg, 1980; Motta, 1991), networks and network governance (Agranoff, 2007; Castells, 2013), improved performance (Bouckaert & Halachmi, 1996; Boyne et al., 2006; Neelly, 2007; Bouckaert & Haligan, 2008) and public value creation (Moore, 1994 and 1995).

This paper is part of a research project that links business models, design science and public governance concepts, and focuses on a specific area of knowledge that remains unexhausted: specification and conceptualization of a public governance model. The aim of this paper is to propose a Public Governance Canvas model to describe governance arrangements of a given public intervention (government, policy, program, project, process etc. aimed at addressing public problems), drawing from the literature on business models, public governance and design science. Based on this foundation, other aims are pursued, such as: identification and modeling of indicators, improvement of decision making, strengthening of strategic planning, support in the design of IT solutions, improvement of communication with stakeholders and, most importantly, increasing the innovation capacity of the organization’s staff and managers towards achieving results. The components of the proposed model and how they relate are based on elements of the public governance concept. This proposal (as a meta-model) allows the creation of specific public governance models that, based on 14 elements divided into 4 blocks, describe the

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1 Publix Institute and Brazilian School of Public and Business Administration at Fundação Getulio Vargas.
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operative rationale of any public intervention, providing insights and assessing the feasibility of its implementation.

Sections 2 to 4 present the concepts and developments related to the business model topic and motivation for understanding and applying it. Section 5 presents concepts and further thoughts related to the topic of public governance. The modeling and proposed approach for the Public Governance Canvas are presented in Section 6, where its key aspects are also discussed. Finally, section 7 presents some final thoughts regarding the proposed model and indicates possible implementation paths.

2. Definition and benefits of Business Models

The term “business model” became popular in the literature along with the information technology era and the Internet in the 1990s (Afuah and Tucci 2001; Pateli and Giaglis 2003) and the development of ICT-based organizations. Note that there is no single concept defining it (Morris et al., 2005; Zott et al., 2010).

Business model is an expression consisting of two words that suggest it is something related to a model within a business environment (related to a private organization). According to Ferreira (2009), "model" is a smaller-scale representation of something (an object, a physical or human phenomenon etc.) or its description in mathematical algorithms, both intended to facilitate the study of the original. Osterwalder (2004), in turn, defines the word “business” as activities related to the supply of products (goods or services).

Therefore, the goal of creating a business model was to help understand, describe or predict how organizations function in their activities of supplying products and obtaining sustainable financial returns. Since the notion of "product supply" may seem too restricted, it should be extended to allow understanding (at a higher level of abstraction) how a private organization obtains its income (pecuniary return), by supplying products (what is offered in return), to whom it supplies, how and with whom it generates its products, etc. In other words, it means identifying the concepts and tools required to assist managers to specify the organization’s logic, how it works and how to create value for its stakeholders (Zott and Amit, 2008; Casadesus-Masanell and Ricart, 2010).

It should also be mentioned that there is a relationship between business models and strategy. This paper does not seek to address this issue, but draws attention to the business model as the translation of an organization’s strategy (Stähler 2002; Seddon and Lewis 2003). Stan (2013) claims that they are significantly converging instruments, with some complementarities.

Timmers (1998), among the first to explicitly define the business model, understands it as an architecture of flows of products, information, including a description of various business players (including customers) and their roles, as well as the description of revenue sources.

Linder and Cantrell (2000), in turn, define business model as the logical core of how an organization creates value. Chesbrough and Rosenbloom (2002) maintain the view of alignment between technology and the business, i.e. understanding the business model as an intermediary link between the development of IT solutions and value creation by the company. Shafer et al., (2005) relates the business model concept to the strategy concept, understanding that it is the representation of the organizational logic and the strategic choices aimed at creating and capturing value within a value network. Amit and Zott (2001) propose a complementary network-centered approach. They describe a business model as the configuration of content, structure and governance of organizational transactions aimed at identifying business opportunities for value creation. Amit and Zott (2001) point out that the transactions are active throughout a network of organizations, including suppliers, partners and customers.

Osterwalder (2004) summarized the contributions of the most important authors on business model and found that much of the existing research on the topic remained at a conceptual, broad and sometimes
vague level. In analyzing what a business model is from different perspectives, he proposed the following definition:

A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams. (Osterwalder, 2004)

In this sense, he focused on a specific area that had not been well covered until then: the conceptualization and specification of a generic model to describe business models. Such an approach has become essential not only for providing a simple understanding of management aspects, but also for providing effective business model tools to improve management in an increasingly uncertain, dynamic and complex organizational environment (Horney, Pasmore and O'Shea, 2010).

The research into business models still regards them as relatively recent, yet their increasing relevance and key position in management have been proven in contexts of uncertainty. Some tools have been designed to assist managers to capture, understand, communicate, design, analyze and change their organization's business logic.

The following are some of the benefits that the business model approach can provide to organizations. These benefits were organized into five functions by Osterwalder (2014) – based on a proposed business model ontology to be presented in the next section –, namely:

- **Visualization, understanding and communication**: the first contribution of a business model is the understanding and communication of the organization's business logic. Business models help to capture (through a simplified and clear representation of the business operation based on a common language among stakeholders), visualize (through a graphical representation that allows expanding human capacity to process complex information at a high level of abstraction (Rode, 2000; Pateli; Giaglis, 2004)), understand (through identification and understanding of key elements in a specific domain and relationships among the elements (Ushold and King, 1995)) and communicate (through sharing of the understanding of the business with other stakeholders, expressing the business in the most tangible way (Fensel, 2001)) the business logic.

- **Analysis, measurement and comparison**: the second contribution of a business model is to provide a structured analysis of the organizational logic, through identification and development of indicators (making it easier to identify key indicators with a view to improving management) and comparison with the business logic of other similar organizations (through a structured approach, it allows comparing the business model based on the same understanding, helping to obtain new knowledge from other sectors and fostering innovation of the business model).

- **Design, planning, change management and alignment**: the third contribution of a business model is to improve the organization's business logic management. The business model concept can improve design (through description of key elements that make up the structure of a business model, it is easier for managers to create a more sustainable business model), planning, change (through agreeing and visualizing the business model, planning and execution are improved, since it is easier to go from a "current situation" to a "future state" when one understands precisely the desired future situation and demonstrates what elements should change (Linder and Cantrell 2000)), and alignment (through mediation between the strategy, implementing structure and technology) of the organization, enabling a faster response to changes in the external environment.

- **Decision-making**: the fourth contribution of a business model is to improve the decision-making process. It increases understanding and communication of the business logic and enables the
construction of indicators, which, in turn, provide to managers more information inputs to make better decisions.

- **Prospective:** the fifth contribution of a business model refers to the organization's future prospects. The business model can help promote innovation (through visualization and analysis of a set of elements/components of the business model that allow increasing the manager's capacity to design or create completely new businesses (Amit and Zott, 2001)), increase the organization’s readiness and anticipate future scenarios (through the existence of a range of potential business models in order to be proactively ready in face of unpredictability of change in the environment).

### 3. Business Model Ontology and Design

Osterwalder designed and proposed a rigorous conceptual framework for business models, which was called an ontology. The term ontology is borrowed from philosophy to be applied to organizational systems and can be understood as a description (an explicit/formal specification) of concepts and relationships in a field of knowledge (Gruber, 1993; O'Leary, 2001). Guarino and Giaretta (1995) define ontology as the philosophical discipline that deals with the nature and organization of reality, different from Epistemology, which addresses the nature and origins of knowledge.

In the ICT field, the term ontology was initially used in the area of artificial intelligence and knowledge engineering. Currently its importance is recognized in several areas of knowledge, such as information systems (qualitative modeling, database design, agent design-based systems, object-oriented analysis), medicine, biological information systems, mechanical engineering, organization and standardization of knowledge, and management and organizational integration (Guarino, 1998; O'Leary, 2001; Osterwalder, 2004).

For Ushold and Gruninger (1996) a simple example of ontology is the specification of a database containing the hierarchical description of type, classes and their relationships in subsections, relational database schemas (relationships that may exist in a given database) and integrity constraints that must be identified. Ushold and Gruninger (1996) further claim that the main reason for applying ontologies in the ICT field is to develop and implement a formal/explicit account regarding a common understanding in a particular area, in order to solve a problem.

This study addresses ontology as pertaining to organizational models, which, according to Fox and Grüninger (1997), has the goal of being a representation of the structure, activities, processes, information, resources, people, behavior, goals and limitations of a business, organization or government. In short, ontology can be understood as a reference model - the term "reference" is understood as an authority (Duce and Hopgood, 1990) - which provides a common understanding of a knowledge field (Osterwalder and Pigneur, 2003).

Furthermore, the term ontology contains in its concept the definition of semantics and syntax for a field that subsequently may refer to a proposed modeling of an ontology of a specific field (Guarino, 1998). This matches the business model ontology perfectly, since it aims to define the concepts and relationships within an organizational system.

The building of a business model ontology follows a different rationale from that of a structure/framework. The framework is based on a theoretical contribution drawn from the understanding of the reasons (the whys) for a given organizational phenomenon (Whetten, 1989) - in search of a theory to help distinguish patterns, elements and their operation. The rationale of the ontology, in turn, seeks to build an approach to a problem-solution (finding and resolution) (Osterwalder, 2004). Therefore, it is about being able to capture and formalize the business logic in order to design and build a representation of the organization's business.
To this end, the ontology approach is combined with design science\(^4\). Au (2001) defines design science as predominantly applied research intended to address practical problems. It means developing products that have the purpose of generating gains for people, as opposed to natural and social sciences, which seek to understand reality (March and Smith, 1995). In this sense, one can understand the activities of design science as taking place in two stages, i.e. research activities\(^5\) (comprising building, evaluation, theorizing on and justifying elements/components/devices) and research outputs\(^6\) (covering constructs, models, methods and instantiations) (Au, 2001).

A proposed business model ontology has roots in business model design and essentially covers research activities (particularly building and evaluation) and has research outputs (mainly constructs, models and methods).

In this sense, Osterwalder (2004) proposed the creation of a generic ontology of a business model (containing, for example, an artifact/tool or template) that can conceptually express the business logic of a private organization in a structured way. It is worth noting, however, that none of the studies of business models analyzed were intended to model the entire organization. Research in this area, which provided the basis for this study, focused on the business model, i.e., the logic of how an organization works and produces results (in the case of the private sector: how it obtains sustainable returns, profit), not intending to describe the company as a whole. The main objective of Osterwalder (2004) was to provide bases for new strategy management tools and in the modeling of information systems. To this end, he proposed a simple tool that aims to facilitate the description of a business model called Business Model Canvas (Osterwalder and Pigneur, 2010).

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\(^4\) Fuller & Mehale (1965) considered the science of design a form of "systematic design", distinguishing between scientific method and design method. Simon (1996) considered design a meta-discipline for all professions, a "science of the artificial". Dorst & Dijkhuis (1995) distinguish two major design perspectives: rationalist, in which the design is based on research and knowledge predictably and controllably, involving a set of methods and principles guided by technical rationality with a view to optimization in the face of restrictions and goals, by means of prior planning involving the specification of sequential steps (Newell & Simon, 1972; Pahl, G., & Beitz, 1996); and focused on action, which is empiricist and postulates that designers essentially resort to creativity and emotion in improvised processes without a strict and predefined sequence of steps and in which analysis, design and implementation are concurrent and interrelated (Ralph, 2010). Both perspectives are based on research and knowledge, but differ with respect to methods. One emphasizes control and predictability of the process, while the other underscores judgment and common sense of the designers themselves. In any case, there is substantial empirical evidence that the action-centered perspective is more plausible. (Cross, Dorst, & Roozenburg, 1992). The field of study and practice of public administration is viscerally connected to the métier of the institutional designer. The legendary Waldo-Simon debate raises, in a way, the kind of science design that the field of public administration should be. On the one hand, Waldo (1955) posits that public administration is an art of practical and useful advice for tackling administrative challenges. On the other, Simon (1946), in line with his concept of science of the artificial, idealized public administration as a contemplative applied science, based on formal modeling, quantitative testing of hypotheses and logical consistency, so as to provide intellectual control over design challenges. As argued by Barzelay & Thompson (2010): "Simon got the field's dimensions right but, by calling for the creation of an administrative science based on the canons of natural science, lost the emphasis on practice; Waldo got the emphasis on practice right, but the content of the field wrong. We would like to go back to that time and put the field on the right track, combining Waldo's emphasis on normative, deliberative reasoning, which is central to management practice, with Simon's notion of general management as a design science."

\(^5\) Regarding research activities, March and Smith (1995) define: i) **building** refers to the construction of constructs, models, methods and artifacts demonstrating that they can be constructed; ii) **evaluation** refers to the development of criteria and analysis of the research output’s performance against established criteria; iii) **theorizing** relates to the construction of theories that explain how or why an event takes place, i.e., an explanation of how or why an artifact works within a particular environment; iv) **justification** refers to theoretical proof and requires gathering of scientific evidence that supports or refutes a theory.

\(^6\) With regard to research products, March and Smith (1995) define: i) **constructs** or **concepts** form the vocabulary of a domain – the concept adopted to describe problems within a field; ii) **model** is a set of propositions or statements expressing relationships among constructs; in design science, models represent situations as problem and solution statements; iii) **method** is a set of steps (algorithm or guideline) used to perform a task; methods are based on a set of underlying constructs (language) and a representation (model) of the solution space; iv) **instantiation** is the application of a model in one of its possible uses, i.e. the operationalization of constructs, models and methods.
4. From the components to the Business Model Canvas

When designing ontological modeling for business models, it is crucial to build tools that support business planning and structuring, to help managers understand and describe the organization’s business logic.

The function of the business model is its ability to describe the logic of value creation, delivery and capture by a private organization, as a supporting tool for implementation of the strategy (Osterwalder and Pigneur, 2010) in alignment with the structure, people, processes and information systems.

Based on robust research (grounded on literature review, interviews with experts and analysis of real experiences), Osterwalder (2004) determined that the best way to describe a business model is to identify elements that demonstrate how an organization creates value. To this end, he used a set of business components, also known as "elements", "building blocks", "functions" or "attributes" of business models. This was the first step towards the creation of a business planning and modeling tool that helps managers to understand and describe their organization’s value production logic.

To build a business model ontology, Osterwalder (2004) identified, first, four areas based on the Balanced Scorecard approach (Kaplan and Norton, 1996) and Markides (1999), emphasizing the four pillars of a business model, namely:

- Products: the core business of an organization are its products and the value proposition offered to the market;
- Interface with the customer: who are the customers, how the products (goods or services) are to be provided and how the customer relationships can be strengthened.
- Infrastructure: how the organization is structured efficiently to carry out its internal processes, its logistics and how it relates with partners in a network.
- Finance: how the organization obtains financial returns, its cost structure and business sustainability analysis.

Then he unfolded the four pillars into nine interconnected elements that allow designing a business model ontology. The four pillars can be considered as a categorization and the nine elements as the ontology’s core. The figure below illustrates the first overview of the business model ontology and how the specific elements relate to each other.

Figure 1. Business Model Ontology (Osterwalder, 2004)

In order to turn the concepts and elements/components mentioned into a practical tool, Osterwalder and Pigneur (2010) adapted the elements in a diagram called Business Model Canvas. An overview of the functioning of an organization can be obtained by relating the elements in the framework (canvas), allowing the manager and his staff (and partners) to obtain the same view, speaking the same language.
without, however, being reductionist, i.e., trying to underplay the complexity that exists in an organization.

It is worth noting that none of the elements that compose the canvas proposed by Osterwalder and Pigneur (2010) are new themes, and their biggest advantage is the ability to synthesize the operating logic of a private organization in a single page, providing a holistic vision of the business.

The following figure illustrates the Business Model Canvas framework. The canvas method was designed to allow for the idea, identification and description of possible elements that are or should be part of an organization’s business model. The framework facilitates understanding of the business as a whole, since it allows for an integrated view of the business, the supply of goods or services (value proposition), activities, relationships, customers, partners, distribution channels, resources and finance (costs and revenues).

Figure 2. Business Model Canvas (Osterwalder and Pigneur, 2010)

5. Incorporating Public Governance elements

Public governance has become a "magic concept" (Pollitt, 2009), attractive, with strong positive connotation, carrying a new rhetoric to describe innovations in the process of governing (Kooiman, 1993), based on a more comprehensive and integrated view of government - whole of government - (Christensen & Lægreid, 2011; Lægreid & Verhoest, 2010; Pollitt, 2003) and society (Kooiman, 2003). Regardless of constituting a new paradigm that develops new ingredients that were not present in the orthodox bureaucratic administration and new public management (Osborne, 2010), or suggesting multiparadigmatic elements (Aguilar, 2006), Bevir (2009) proposes to treat governance as a process of governing – a convenient treatment for the purpose of this paper, which addresses the representation of interventions as processes.

Along these lines, Martins & Marini propose representing the governance process based on four elements of a governance chain (Martins, 2011a; 2011b), illustrated in Figure 3.
Seen from this perspective, public governance is a process of generating public value from certain institutional capacities and qualities; collaboration between public and private agents in the co-production of services, policies and public goods; and performance improvement. These four dimensions addressed overlap.

With regards to institutional capacities and qualities, governance is equivalent to government capacities (Hollingsworth Schmitter & Streeck, 1993; Grindle, 1997; Fukuyama, 2013) related to leadership (Motta, 1991; Burns, 1978; Lasswell 1966; Barnard 1971; Mintzberg, 1980), strengthening of internal competencies ( Prahalad & Hamel, 1990), readiness to act (Kaufman et al, 2003) and institutional design (Aguilar, 2011).

Collaboration between public and private agents in the co-production of services is the domain of collaborative governance in multi-institutional networks (Agranof, 2007; Koliba, Meek & Zia, 2011; Agranoff & McGuire, 2003; Santos, 2009; Peters, 2010; Goldsmith & Eggers, 2004) and interactively with the network society (Castells, 2010; 2012; 2013).

Performance, in turn, comprises the set of efforts undertaken toward outcomes to be achieved, involving dimensions such as economicity, execution and excellence (related to efforts) and efficiency, efficacy and effectiveness (related to results) (Bouckaert & Halachmi, 1996; Neely, 2007; Haligan & Bouckaert, 2008; Boyne et al., 2006).

Public value is ultimately the key driver of the governance process, indicating the value attributed by the beneficiary public (analogous to business clients) to what it receives from the government, a kind of return on "investment" (taxes paid) made by citizens (Moore, 1990), but also civic and republican values, satisfaction and quality perceptions (what the public values and consequently would give something in return for), value-added surplus through innovation processes, assets or intangible heritage represented by public institutions, and results of public policies formulated on the basis of refined preferences (Moore et al., 2011).

From a pragmatic and transformational perspective, governance is a process that can and should be optimized. A public intervention representation model should therefore not only incorporate the elements of the governance process (institutional qualities and capacities, collaboration and relationships, performance and public value), but provide, based on a faithful representation, the development of more sustainable processes of governance improvement.

### 6. Ontology and the Public Governance Canvas model

The literature on public governance, as presented in the previous section, is a recent field of research whose importance has skyrocketed in the last decade. Considering that most research on the public governance model remains at a broad conceptual level, sometimes superficial and with gaps, this paper attempts to identify the details and define a model to describe a public governance ontology.
To this end, it draws on business model and public governance concepts to build a reference model. This model is proposed as a new way of understanding public interventions that presents significant advantages over previous approaches, as a basis for explaining weaknesses in existing governance systems and indicating ways to overcome them, as a framework/canvas in which organizations can be compared and new organizational models can be designed.

Therefore, the key question of this study regarding public governance models is: where are the tools, if any, that help public managers to easily explain (what is) and how their organization’s "business" works (the logic of generating products, whether goods or services, tangible or, as is very common in the public sector, intangible), how is the strategy precisely structured and executed, using a simple graphic tool? Moreover, where are (or what are, if any) the really useful tools that allow managers to understand, measure, assess change, communicate or even simulate organizational dynamics? Of course, every director or public manager has an intuitive understanding of how their business works and how value is created. In other words, they have an intuitive understanding of the organization's structure model, but even if the governance model in question influences all the important decisions, in many cases a manager is rarely able to communicate it in a clear and simple way. And how can one decide on a particular topic of governance (or public policy) or change it if it is not clearly understood by the parties involved? Therefore, it is crucial to develop a tool that allows public management practitioners to understand what their business model is and what essential elements comprise it, easily communicating the model to other stakeholders, allowing it to be changed and modeled in order to learn about key opportunities to generate more public value.

March and Smith (2005) argue that the design of a framework (canvas) means, primarily, to seek basic elements/components of a governance model and, in turn, build the ontology that expresses the relationships among them.

Just as the Business Canvas focuses mainly on the structural aspects of the business, the aim of this study is to formalize the public governance domain in a Public Governance Canvas model. The proposal is to provide a semi-formal ontology for public governance models, following the guidelines of Ushold and King (1997) for building an ontology:

- ontology coding: identify key concepts and relationships in the field of interest and produce unambiguous and mutually exclusive text definitions of the elements;
- ontology evaluation: test the ontology’s internal and external consistency against the literature on results-oriented governance; and
- ontology documentation: documentation and specification of the designed ontology.

Drawing from the business model and public governance definitions presented in this document, a proposed definition for a governance ontology for the public sector refers to the public governance canvas, a conceptual tool that contains a set of elements and their relationships that allows expressing the logic of value creation, delivery and appropriation in a governance environment. In other words, it is the description of the value that an intervention offers to one or more segments of beneficiaries, the detailing of the information flow, the governance architecture and its network of stakeholders, in order to produce sustainable transformation and public value.

As explained in previous sections of this paper, the main objective of this research is to provide an ontology that allows a public intervention to be described accurately. Therefore, the first step was to identify in the literature on business models and public governance the main domains, aspects, elements/components, functions that constitute an intervention. However, it should be noted that the different approaches and descriptions of the components of the business model vary as to rigor and depth, ranging from simple enumerations to detailed descriptions. Some authors simply mention the proposed elements, while others explain them and yet others propose a conceptualization.
Before getting to the detailed public governance ontology, blocks of the model were identified, based on a synthesis of existing literature on the topic, described below:

- **stakeholder network**: refers to the relationship between beneficiaries, suppliers, partners, employees and other stakeholders;
- **value creation foundations**: refers to costs, installed capacity, cost structure and revenues.
- **value creation flow**: refers to processes, procedures and distribution logistics;
- **delivery/value appropriation flow**: refers to products, impact and public value generated.

Tables 1 and 2 below presents the list of blocks and elements of the public governance model and the relationship with the elements mentioned by authors. The aim of this paper is to propose a public governance model that integrates existing research and move forward by conceptualizing each element individually and, in turn, integrate them into a comprehensive vision.

The table summarizes the contributions of the most important authors on public governance and business models who contributed to the model proposed in this document. The first two columns show the main components identified of the public governance model. The following columns present the authors and year of their contribution, and whether the author contributed to the specification (and composition) of the public governance model.
Table 1. Comparison of the literature review (Part 1) - Public Governance Ontology.

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Table 2. Comparative literature review (Part 2) - Public Governance Ontology.

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The elements presented in Table 1 are a synthesis of the public governance, results-oriented management and business model literature review. Based on the literature review, concepts and a tool were designed to help managers capture, understand, communicate, design, analyze and change the logic of their organization's governance model.

The result of this research is the public governance model ontology that should preferably form the basis for new strategy management and information tools, as well as other benefits in terms of measurement and evaluation. A simple tool prototype is provided in figure 6 below with a view to facilitating the creation or representation of specific public governance models. Table 3 presents a description of the components of the Public Governance Canvas model and the main guiding questions for the model’s application in order to develop and improve organizations.

Figure 6. Public Governance Canvas.
<table>
<thead>
<tr>
<th>Block / Component</th>
<th>Description</th>
<th>Questions that guide the development process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers</td>
<td>Describes the agreements and contracts for necessary supplies, as well as the stakeholders involved in each supply agreement.</td>
<td>Who are the strategic suppliers?</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Describes what is the network of (formal) cooperation agreements that seeks higher value delivery.</td>
<td>Who are the key partners? What kind of resources should be obtained from these strategic partners? What kind of processes/projects do these partners implement?</td>
</tr>
<tr>
<td>Collaborators</td>
<td>Describes the staff and functions/positions required by the governance model.</td>
<td>What kind of collaborators are required? What kind of processes/projects do these employees perform?</td>
</tr>
<tr>
<td>Other stakeholders</td>
<td>Describes other potential partnerships required (also considering informal relationships) or other stakeholders affected by the intervention.</td>
<td>What other stakeholders are important to enhance the value proposal? What other stakeholders are more likely to collaborate or to menace the intervention?</td>
</tr>
<tr>
<td>Beneficiary</td>
<td>Describes the segment(s) of beneficiaries (target audience) of the governance model.</td>
<td>For whom are we producing value? What are the characteristics of the target audience(s) of public policies? Who are the most important beneficiaries?</td>
</tr>
<tr>
<td>Relationships</td>
<td>Describes routines/protocols adopted among stakeholders, how contact is maintained among the stakeholders and what type of relationship is established with each stakeholder (supplier, partner, collaborator, beneficiaries).</td>
<td>What kind of relationship can each stakeholder group expect? How is this relationship integrated with the governance model? What are the positive and negative incentives adopted in each relationship?</td>
</tr>
<tr>
<td>Revenues</td>
<td>Specifies what form and sources exist/have been found to obtain revenues and sustainability of the governance model. Describes what funding sources are, describing the budget and financial structure of governance model required to deliver the proposed value.</td>
<td>What are the main sources of funds? Are these sources sufficient to cover the value proposal?</td>
</tr>
<tr>
<td>Costs</td>
<td>Describes the cost structure and the means involved in the operation of the model.</td>
<td>What are the most important cost items inherent to the governance model? What are its financial values? What cost items can become unpredictable?</td>
</tr>
<tr>
<td>Resources (input)</td>
<td>Describes what are the necessary resources to deliver value to the beneficiaries, whether physical facilities, financial resources.</td>
<td>What resources are important to achieve the value proposal? What are the most expensive resources? Can a disruption in the supply of key resources be tackled?</td>
</tr>
<tr>
<td>Capacities</td>
<td>Related to institutional skills (intra-organizational) and individual skills (knowledge, skills etc.) for useful execution focused on creating value for the beneficiary. Aims to create unique performance, based on efforts that are undertaken in order to produce results.</td>
<td>What is the essential institutional skills (intra-organizational)? What are the main skills of the individuals who make up the governance model?</td>
</tr>
<tr>
<td>Activities</td>
<td>Describes how activities are organized in the governance model structured by initiatives - whether processes, projects or events - needed to generate value for the beneficiary.</td>
<td>What processes/projects are important for the value proposal? (consider relationships, implementation, etc.) What is the most valuable and most expensive process/project?</td>
</tr>
<tr>
<td>Block / Component</td>
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<td>Questions that guide the development process</td>
</tr>
<tr>
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<tr>
<td>Distribution</td>
<td>Describes the means (channels) and the form (instrument) that the governance model uses to deliver goods and services to its beneficiaries, how it maintains contact with its beneficiary (direct or indirect).</td>
<td>Which channels do our beneficiary segments prefer to be used? How (instrument) are these channels integrated? What channels are most cost-effective?</td>
</tr>
<tr>
<td>Products (outputs)</td>
<td>Describes an overview of the set of goods and/or services delivered to the public policy recipients.</td>
<td>What set of goods and/or services are delivered to each beneficiary segment? What beneficiary problems are being addressed?</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Describes the network of direct and indirect outcomes produced in the external environment (external to society and/or citizens) through the delivery of goods and/or services.</td>
<td>What are the main expected impacts (direct and indirect)?</td>
</tr>
<tr>
<td>Value</td>
<td>Describes the value appropriated by the beneficiaries, enabling the fulfillment of their expectations, values, demands and interests, which are key to generate trust.</td>
<td>What kind of public value is delivered to the beneficiary? What needs, expectations, values, demands and interests are being met? What is the cost/benefit/value in our governance model? What is the share of contribution of each revenue source to the expected public value?</td>
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7. Final Thoughts

In this study, the goal was to propose a public governance ontology in order to improve understanding, communication, innovation and measurement in public interventions, based on a robust literature on business models and a structured public governance concept. Although the goals may seem similar, the domain and content of the ontology adopted for private companies is substantially different from a public governance ontology to be adopted in the context (and inherent challenges) of the public sector – or, in a way not restricted to governments, related to addressing public issues.

The concept of the business model theme has expanded beyond its origins restricted to the environment of information and communications technologies developers. The term has become a management tool and has come to represent an organization that creates and delivers value to its beneficiaries through products (goods and services) in a sustainable manner.

Concurrently, the public governance issue has been strengthened by seeking solutions to complex public problems and focusing on creating value for public policy recipients. The union of these two themes and the science of design provided the basis for the design of a new Public Governance Canvas model that allows the redesign of organizational management models, enabling progress in the process of innovation and effectiveness gains. This study has sought to contribute to the public governance debate by proposing techniques and a canvas model for the public sector with a view to developing specific governance arrangements, and as an innovation factor in contemporary public management.

The innovation of a governance model can be seen as a starting point to transform the logic of proposing, delivering and appropriating public value. The generating of innovative governance models/arrangements represents a source of sustainable development production, considering that it can result in the creation of value networks and changes in management, providing a framework for the emergence of new successful experiences in management for results.

It is clear that this research should be further developed through the application of this model in organizations, and that it should be considered a broad topic to be further investigated, with important outcomes for both practitioners and academics.

References


USCHOLD, Mike et al. The enterprise ontology. The knowledge engineering review, v. 13, n. 01, p. 31-89, 1998.


