
Assessing business model relevance for business leaders in the construction industry

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Abstract: This paper studies the business model (BM) relevance for business leaders in the construction industry. Specifically, we address the question of the comprehension and utility of the generation, remuneration, participation (GRP) model, a BM representation, for leaders within an established sector. Using an action research methodology, our findings empirically prove that the BM can be taken out of its original context of start-ups, and used within existing organisations. Our results also suggest that in traditional small-sized companies, where strategic tools are rarely mobilised, the BM might be appropriate for leaders to address the question of business growth. Interaction between leaders and researchers also contributed to the advancement of the GRP model and the homogenisation of its visual representation.

Keywords: business model; representation; action research; construction industry; qualitative research; strategic tools.

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1 Introduction

During the early 21st century, the use of the concept of business model (BM) has spread like wildfire, first in relation to the development of internet start-ups, and then more generally in 'high-tech' industry. But generating value for customers or developing a sustainable economic model are preoccupations shared by many other firms in more traditional industries. The BM was initially used in the context of business creation but also for existing firms (Chesbrough, 2006; Zott and Amit, 2010). The study of the literature reveals there is still a lack of empirical approaches concretely using the BM within firms: most often, the concept is used as a grid to analyse businesses using secondary data only, but in those researches the entrepreneurs themselves did not use the BM. Our paper relies on empirical research that led to a theorisation of the BM in the form of tools implemented in the field of company creation (Verstraete and Jouison-Laffitte, 2009, 2011).

Interested in the relevance of the BM as a tool for traditional existing SMEs, our research team encountered an opportunity for research in the construction industry. According to the experts of the French Federation of the Construction Industry (FFCI) we met, SMEs in this sector lack growth ambitions. In many economic sectors, researchers focus on small businesses' growth (Carpentier and Suret, 2006; Solomon et al., 2013). The factors that influence SME's growth in specific industries such as the construction industry have been analysed (Kangasharju, 2000). Other studies focus on the construction industry exclusively. In various countries, its trends are studied because its health is an

important indicator of the countries' development. Territories such as developing countries (Osabutey et al., 2013; Ye et al., 2013), Asia (Liu and Low, 2011; Yip Robin and Poon, 2009) or Europe (Boyd, 2010; Horta et al., 2012) are under researchers' lenses. Various questions are asked about performance, human resources management, governance and the firms' collaborative or competitive strategies. The research designs are diverse, going from exploratory qualitative studies to econometric models. In this research, the meeting point between the researchers and the construction industry centred on the BM, which can be a useful tool for managers wishing to exploit the entrepreneurial potential of their organisation.

Our main objective in this research is to go beyond the context of business creation in order to examine the use of the BM in relation to existing traditional businesses. Our research question is twofold: Does the BM concept make sense for business leaders in the construction sector? And do business leaders recognise the value of implementing the BM as a tool in the perspective of making their firms grow?

Firstly, the article explains the theoretical concept of the BM used in this research. Secondly, the operating framework (an action-research investigation that mobilised a team of 11 researchers and five managers during the period from July 2009 to February 2011) is set out. Thirdly, the results of the research are outlined and discussed. Finally, the inputs and the limits of the research are exposed.

2 Theoretical background

At the core of a business, we consider that there is a 'convention' of what is the business (Gomez and Jones, 2000). This convention is so complex that it needs to be 'translated' in order to be understood by the stakeholders involved in the business (Akrich and Callon, 2006). By nature, the BM is the translation of this convention.

Based on a precise literature review and previous empirical researches, we consider that the building blocks of the BM can be gathered in three major categories relative to the generation of value, the remuneration of value and the sharing of value with partners (participation).

2.1 *The nature of the BM*

The BM creates a collective understanding of the business for all the actors involved in it. It can be seen as an object that can help to build and maintain a business system. Translation theory (also known as actor-network theory) shows that the various parts of a system are implicated as intermediaries that bind the whole (Akrich and Callon, 2006; Callon and Law, 1988). It consists of involving a small number of actors in a group. They act as intermediaries and, as such, they bind together a network and unite other actors with it. Translation enables this networking by establishing a link between challenges that are *a priori* diverse.

In the case of business, the actors (suppliers, employees, entrepreneurs, local public sector) face specific issues but they also participate in a system (the business) via an essential spokesperson, the entrepreneur. They are the translator of a generic problem and

must be accepted in this role by the different actors. This acceptance is facilitated when the problem encompasses their expectations. This plays an essential role in the creation of meaning that constitutes the genesis of the BM, i.e. the shared representation of the business.

Whereas actor-network theory underlines the essential role of the entrepreneur and the BM, conventions theory offers a stimulating understanding of the nature of the BM. Convincing stakeholders to gather around a project of business creation is challenging (Clarkson, 1995; Donaldson and Preston, 1995; Freeman and Reed, 1983). Their agreement depends on the way entrepreneurs share their project and leads them to agree on a collective representation of the start-up (Verstraete and Jouison-Laffitte, 2011). Without this agreement, the chances of 'crystallisation' are low. The theory of conventions (or economy of conventions) is relevant to shedding light on the concept of collective representation. A convention is not restricted to a coordination of information, but coordinates relationships. Exchanges take place in a common frame of reference: the convention. Actors in a space-time share a base of common knowledge that influences their behaviour.

Recurrent experiences stabilise the system by coordinating actors. They contribute to the emergence of a collective representation. This representation helps them in interpreting their own behaviour with reference to commonly-accepted behaviours. Behaviours are influenced by a mimicry phenomenon (Gomez and Jones, 2000). Although everyone does not necessarily behave the same, the convention nevertheless helps actors to judge the behaviour of others, and guides them in particular when they are facing uncertain situations. This theory responds to uncertainty management. It leaves the actors the possibility of determining their own behaviour through a combination of individual motivations and a more collective representation: 'the free will and the social context [can] interact to produce both structure and action' [Gomez and Jones, (2000), p.697]. Conventions theory enables an understanding of the coordination of human behaviour, in particular within organisations that can then be considered as 'effort conventions' (actors sharing a common economic goal produce a collective 'effort of work').

In this way, the common framework enables the emergence of a business, and a collective of actors gives birth to the convention (the firm). The individual deals with both their own intentions and the rules contained in the social history that have forged their experience. They are aware of the conventions surrounding them. They presume that the actors they meet will join their project according to the conventions influencing their own behaviour. Their project must give meaning, and this meaning is expressed in the convention they build with the convinced actors who join them. The BM is the translation of this convention that makes intelligible the complex system that is the business (either established or in creation).

This translation creates meaning through, and for, the parties committing to the proposed activities. Those stakeholders participate in the construction of these activities by providing tangible or intangible resources. The entrepreneur, as spokesperson, presents the convention under construction to the resource owners whose involvement they need to launch the business.

By transforming the BM into a tool, it can serve for the development of the project and the exercise of conviction through which the entrepreneur enrolls stakeholders. To this end, the BM itself needs modelling, in order to ‘show’ it to interested parties (in the first place the entrepreneur themselves). By ‘show’ we mean a capacity to generate a cognitive pattern in the mind of the actors receiving the message; this pattern supplies the intelligibility required by the actors to understand the business and project themselves into it. Without this understanding, there is little chance that they will participate in the project. It is then necessary that the cognitive structure integrates the BM as a representation and, as such, creates meaning for the system.

The entrepreneur must be able to generate, by translation, a mental image representing the BM. This image is meaningful for the actor to whom the business is proposed. Obviously, the entrepreneur proceeds on the basis of their own cognitive representations, and they are not a perfect reflection of the BM under construction. The BM is the fruit of a collective representation, but we can consider that the entrepreneur, as spokesperson, has the most complete and consistent representation of the BM. It is worth pointing out that the more innovative a project, the more difficult the exercise of conviction (establishing commitment) can be. The more complex the project, the more useful its modelling (quest for intelligibility) becomes.

If the goal is to help the entrepreneur to develop and maintain a convention, then we must provide them with tools that can help them imagine what the convention might be. It is necessary to represent the BM in order to understand what it is (its nature), and then fill it with content (its building blocks).

2.2 *The building blocks of the BM*

Seen as a social artefact, the BM can be defined as a convention relating to the generation of value, the remuneration of this value and the sharing of value with partners. Our conception leads us to call this the generation, remuneration, participation (GRP) model (Verstraete and Jouison-Laffitte, 2011).

The *value generation* includes three categories of knowledge: the value proposition, its manufacturing and the project leader. The ‘value proposition’ is a common expression in the literature on BMs. It means generating an offer that provides value to those to whom it is addressed. All stakeholders expect value in return for the resources they bring to the project. Among those stakeholders, customers probably have to be the first to be convinced in order to see other resource holders commit to the project. The objective of a good market study is then to demonstrate the existence of a demand on the market. If the offer provides no value to customers then they will not accept paying for it. In short, what consumer would pay for a faulty product or service? The entrepreneur needs to establish the usefulness of the offer for market segments and for the identified consumers. Knowing precisely for whom value is being created is essential. It also leads to an assessment of competition (Afuah and Tucci, 2001; Chesbrough, 2003; Magretta, 2002; Morris et al., 2005).

The BM hence explains why, on the one hand, target clients find the offer interesting and why they accept it. On the other hand, acquiring consumers presumes that the offer

can be manufactured. It means that resources can be gathered and used to ‘manufacture’ and deliver the offer to consumers. This offer is in fact proposed by an actor (the entrepreneur) whom the system recognises as legitimate, particularly in his ability to keep his promises (and so to manufacture the offer). This entrepreneur themselves can be considered as another building block of the BM.

In order to be sustainable, the business obviously needs to gain something from its activity, particularly in return for the value that the offer brings to the consumers on the market. The *value remuneration* corresponds to the economic model of the business. It is a matter of understanding the logic (Linder and Cantrell, 2001; Morris et al., 2005), the mechanisms (Chesbrough, 2003), or the plan (Kumar and Mahadevan, 2003), that enable revenues to be captured. How does the company buy and sell goods and services [Osterwalder, (2004), p.14]? How does the business earn money (Magretta, 2002; Morris et al., 2005; Petrovic et al., 2001)? Once the sources and volume of revenues have been identified (Morris et al., 2005; Timmers, 1998), it is obviously a question of assessing the potential profit (Dubosson-Torbay et al., 2002), both now and in the future (Afuah and Tucci, 2001; Petrovic et al., 2001; Rappa, 2000). Evaluating the profit requires revisiting the cost structure and profit margins (Demil and Lecocq, 2010; Osterwalder and Pigneur, 2010). The remuneration of value is the price paid by markets interested in what is being offered. Then the BM includes *a minima* the sources of revenues, their volume and an estimation of profits (and hence clearly an estimation of costs).

Entrepreneurs never succeed alone. The generation of value is made possible by the participation of a network of stakeholders that provides the project with resources. Stakeholders expect value in exchange for those resources. Aside from the value expected by customers, entrepreneurs must then consider the expectations of suppliers, employees, financiers, etc.

Stakeholders are often already involved in relationships with different actors within their economic sector, or various markets. The entrepreneur needs to understand the architecture of the exchanges in which the stakeholders’ needs are already involved. They need to understand the ecosystem within which the business will take place.

As long as the partners are satisfied with the exchange, the relationship is sustainable and the business can survive. Literature on the BM refers to a network of value (Shafer et al., 2005) that contributes to the manufacturing of value. Even if it is not possible to integrate them all, the BM adapts to the demands of the potential stakeholders. What is needed is the support of enough stakeholders to fulfil the project’s ambitions, both for its launch and its long-term sustainability. The quality of the network of partners impacts the BM, which develops as a function of the resources captured. The BM thus depends both on the consideration of the stakeholders’ expectations and on the quality of the resources provided by the network. As a consequence, each stakeholder provides its resource in exchange for the value it can get from the relationship with the project. This dimension of sharing value with stakeholders (*participation in value exchanges*) requires an exercise of conviction. In order to be convincing, an entrepreneur needs to know and understand the codes and habits (the conventions) of the resource holders that they want to involve in their business.

The building blocks of the GRP model are summarised in Table 1.

Table 1 The building blocks of the BM via the GRP model

<i>Generation</i>	<i>Remuneration</i>	<i>Participation</i>
Entrepreneur	Sources of revenue	Stakeholders
Experience and path	Revenue streams	Identification
Profile	Activities	Expectations
Motivation	Clients	Contributions
Entourage		Attitude
Team		Power
Value proposition	Volume of revenues	Conventions
Idea (origin, development, protection)	Turnover targeted	Entrepreneurial context
Opportunity (attractiveness of the market, target, competition, ambition)	Turnover specified by revenue streams	Sector of activity
	Ability to generate the turnover	Partners' profession
	Market share	Territory
Value manufacture (organisation)	Profits	Ecosystem
Identification of resources	Financial performance	Value architecture
Arrangement of resources	Non-financial performance	Dimensions of the ecosystem
Delivery of value		

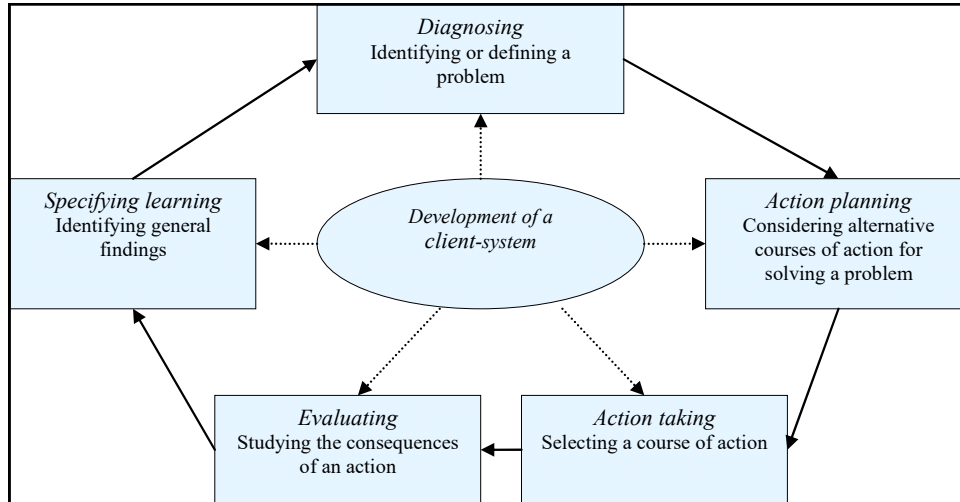
3 Methods

This research took place in the construction industry through the participation of the FFCI and the funding of the Entrepreneurship Chair at our university. An operating framework based on action research (AR) was implemented. The procedure consisted of assessing the managers' ability to understand the BM and then their ability to perceive the value of mobilising it. The GRP grid served to collect information¹ and represent the BM of businesses in the construction industry.

Among qualitative methods, AR is historically a participative approach. Researchers choose to get involved in the social systems that they are studying. AR enables researchers to observe, in situ, evolutions in the situation and/or people's behaviour. It is a process that aims at solving real problems, in situ, through collaboration between researchers and a company's key players. The objective of AR is to produce scientific knowledge relating to the situations studied. It is also characterised by its cyclical nature (Eden and Huxham, 1996).

We based our AR on the cyclical process proposed by Susman and Evered (1978) (Figure 1 and Table 2). Table 3 presents the phases of our research. These phases were deployed in five businesses operating in the construction industry (see Table 4). Each phase of the process (adapted to our research) is presented below.

Figure 1 The cyclical process of action research (see online version for colours)



Source: Susman and Evered (1978, p.588)

Table 2 Action research, a cyclical process

References	The stages of an action research cycle
Argyris et al. (1985)	'Iterative cycles': (1) identification of the problem; (2) planning; (3) action; (4) evaluation
Hult and Lennung (1980)	'Cyclical process': (1) definition of the problem; (2) planning the action; (3) implementation; (4) feedback; (5) evaluation
Lewin (1946)	'Cycle': (1) planning; (2) action; (3) establishing facts about the action
Stringer (1996)	'Spiral': (1) look; (2) think; (3) act
Susman and Evered (1978)	'Cyclical Process': (1) diagnose; (2) plan the action; (3) carry out action; (4) assess; (5) specify

The first phase of the cycle deals with the perception of the problem. This phase required negotiation between researchers and the actors of the business. The research topic emerged at a first meeting between the researchers and the representatives of the FFCI. The FFCI representatives (the departmental president, the secretary of this federation and a young business leader) expressed a desire to modernise training for young leaders, especially to help the most ambitious ones, i.e. those wishing to develop their companies. The FFCI believed that one of the sector's problems is the small size of the companies. The research topic from the FFCI's point of view would be: what resources (or tools) could they use to raise awareness amongst young leaders of the need to develop their companies and even to encourage them to do so? Discussion between the parties led to the research question of whether or not the BM makes sense for business leaders in the construction industry, and whether or not they recognised the value of implementing the BM. The desire for growth (the FFCI's belief that the region's small companies should increase in size) was not integrated into the question, so that it would not be perceived as a necessity. It was specified during the discussions that the research would concern young leaders and not the FFCI.

Table 3 Phases in the action-research

<i>Phase</i>	<i>Date or period</i>	<i>Results</i>
1 Identification and definition of the problem	17th July 2009	Meeting between researchers and industry representatives resulting in the formulation of the problem and the following question: is the BM understood by young business leaders in the construction industry and do they perceive the value of mobilising it?
2 Discussion of the problem and planning the action	22nd January 2010	Meeting between researchers in the team and leaders to discuss the initial question and the purpose of the work, to evoke the principle of action research and to consider its deployment. It was decided to assign a pair of researchers to each leader (ten researchers for five leaders) to produce a representation of the BM.
3 Progress of the action	January to June 2010	Development of the access protocol for the field, adaptation of the GRP. For each of the five sites, three visits of several hours in the field to produce the representation of the BM.
4 Evaluation of the action	13th July 2010	Drafting of the representation of the BM in nine formatted pages, creation of a slide show. Highlighting of positive points, negative points and perspectives.
5 Learning, general results	30th November 2010	Reconstitution of the work at a meeting with the participants in the research and FFCI representatives.
	18th February 2011	Delivery of the research report.

Table 4 Sites studied in the research

<i>Identification of the five business leaders</i>		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
Legal structure		SAS	Three structures (SAS, SARL, SARL)	SAS	SAS	SARL
Year of creation of the activity		1981	1972, 1981, 2002	1986, taken over in April 2007	1919	2005
Nature of company's activity		Electricity (high and low power)	Builders of private houses	Secondary building services (fitting-out of business premises, asbestos removal)	Building closure	Interior painting of public buildings
Last known turnover (ex. tax)		1,911 k€ (in 2009)	3,500 k€ (in 2009)	4,284 k€ (in 2009)	2,208 k€ (in 2009)	1,120 k€ (in 2009)
Average annual full-time equivalent personnel (excluding temporary personnel)		15	20	23	19	16 employees + four non-salaried workers
Average temporary personnel (full-time equivalent)		3	0	0	2 to 3 (occasional replacements)	0

The second phase of the cycle was about planning the action. An idealised vision of the organisation was required, as a goal to move towards. This phase involved the development of a theoretical model in the form of a management tool adapted to the field under review. A meeting was held at the university with 11 researchers, five business leaders and two observers from the FFCI. It enabled us to obtain the directors' approval regarding the question studied, and agreement from each participant. The scientific objectives of the research were presented. It was clearly stated that this could not be compared to a consulting project. The win-win aspect of the relationship was highlighted following a presentation of the BM concept. This meeting also provided an opportunity to state some of the theoretical foundations of the GRP model. As for the planning of the action, it was decided at this meeting that each business leader would work in collaboration with two researchers in order to reveal their company's BM.

The third phase of the cycle had to do with the action itself. The young leaders, in collaboration with the researchers, formulate the BM for their organisation based on the GRP model. Initially conceived for business creation, the three dimensions of the model (G, R and P) needed to be adapted in order to fit the context of existing firms. Uncovering the BM frequently led to discussions about the differences between the BM idealised by the business leader, and the BM as perceived by the researchers analysing the data collected. For each of the five sites, three meetings were necessary to carry out the action and to clarify the representation that the leaders had of the BM. The meetings were recorded, and these recordings, along with the other collected material, were available to all the researchers.

The fourth phase was an evaluation that initially took the form of a statement. A group meeting was organised between the researchers, during which an initial assessment was carried out as follows. After a collective exchange on the way that the research was progressing, which was positive both regarding the availability of the leaders and their involvement in the programme, each pair of researchers presented the BM in the process of translation to the others (with the help of a slide show). It emerged from this meeting that it was necessary to go further, still without taking on a consulting role. It was decided to identify points of vigilance and points of support, on the basis of the BM that had been established. The MLI (More or Less Interesting) method was adopted for this, in the form of a table that highlighted, for each generic component of the BM, the plus point(s) (P), the main negative points (M) and what it would be interesting to do (I) to improve the situation². This additional action resulted in another site visit which also partly served the next phase of the research cycle.

The fifth phase related to learning/experience; each pair drafted a first version of the BM of about ten pages and produced a slide show. These two ways of representing the BM were discussed with each business leader. Various discussions (during this meeting, and then by email) about amendments to the first versions, enabled an assessment of what the researchers had learned (about the company and the industry) and what the leaders had learned in applying the tool. This was the first demonstration of the relevance of the BM beyond the procedure deployed. It emerged that the GRP model is a relevant tool for understanding the BM of an existing business and that it can be used to step back and see a business from a new angle. To clarify the learning phase and identify the results (notably the contributions and limits of the work), a general meeting was held in the premises of the FFCI³. The purpose of the meeting was to present, in around 15 minutes, each company's BM to all of the other participants. Each presentation was made by the two researchers and the leader, for whom this presentation contributed to the training in

the BM. In our research, this phase was combined with the previous one, since discussions prior to the presentation had raised possibilities of acting on certain levers identified during the uncovering of the BM. In other words, while the latter was essentially a diagnostic tool, it had not yet led to possible scenarios, but rather to opportunities for improvement which were highlighted in part by the MLI grid. Anonymously, the leaders took part in a survey to assess their satisfaction with the approach and specifically their feelings regarding learning about the tool. The meeting was also an opportunity for a general discussion, during which the different participants expressed the desire to prolong the relationship and explicitly formulated their expectations for the future.

The five previous phases constitute a process loop as outlined by Susman and Evered (1978). A new loop was, in a way, initiated at an additional debriefing meeting that was held in the morning; a meeting of the research steering committee was held in the early afternoon. This early meeting saw the voicing of a desire to undertake further research. After these various phases, the researchers embarked on discussions about the theoretical implications, i.e. the contribution of the research to the BM concept (cf. discussion).

4 Results

Our results focus on two main contributions that were made possible through the research framework: the involvement and learning of both business leaders and researchers as well as the contextual relevance of the GRP model.

4.1 A research design enhancing involvement and learning

4.1.1 The leaders' point of view

In accordance with the commitments made to the FFCI, the five entrepreneurs who participated in the research project filled out an (anonymous) satisfaction survey after the final presentation of their company's BM. The survey had two purposes: to obtain feedback on how the leaders felt the project had progressed; and to assess what the BM tool had given them, on a personal level, and on a company level. The questionnaire was self-administered in written form.

Analysis of the answers showed the leaders to have been 'somewhat satisfied' or 'completely satisfied' with their participation in the project. The leaders recognised the quality of the plenary session meetings that assembled the five leaders, the representatives of the FFCI and the full team of researchers. Relations with the teams of researchers (the researcher's ability to listen, the capacity for joint reflection) were considered very satisfactory by all participants. These results reflect the actors' commitment to the project and their good understanding of AR rules. When the researchers left their neutral positions, their actions were accepted and even encouraged by the entrepreneurs, on the basis of being 'straightforward' and 'open-minded'.

Regarding the benefits of the project, the leaders emphasised the usefulness of the AR: two declared themselves to 'totally agree' and three to 'somewhat agree' with the statement that the project had been useful for them and for their business. The degree of agreement increased when it came to the written texts, which were considered 'very

helpful' by three of the five leaders and 'useful' by the other two. More specifically, the leaders appreciated '*the chance to take the time to think about management tools in order to view improvements or to examine weaknesses*'. The BM as a diagnosis tool was thus well understood. It emerged spontaneously in responses, with leaders appreciating the way they could 'see' their businesses through the BM. Among the benefits of the tool, *formalisation* and the *re-transcription of information by the researchers* were mentioned, which goes back to the BM's power to provide meaning and visualisation. Far from discouraging the leaders, the effort of co-writing with the researchers and the creation of the presentation slides enabled them to build a readable, structured version of their company. The chance to step back was also cited by all the participants as one of the most positive aspects of the work (*the time it took enabled us to step back, [I appreciated having] a fresh look, 'a different point of view*).

This feedback on the project, as expressed by the participants, enabled us to reply positively to our research question: in the opinion of the users, the BM helped young leaders in the construction industry on at least three levels. It helped them in their analysis of the three dimensions of the GRP model, also in their own view of their company (*increased awareness*), and finally in developing recommendations for the future (*the project allowed us to examine a number of things from all angles, particularly the company's evolution, [to identify] future directions in our work*).

Not only was the GRP model considered useful at a personal level, it also took on a collective dimension in the business leaders' discourses that could be described as 'branch like'. The participants would unanimously recommend the tool to colleagues in the construction industry and to other members of the FFCI. They described an expectation of *general proposals relating to our companies*.

One of the leaders was careful not to offer an opinion on the content of a further stage, saying it was *to be determined*. Three requested a follow-up stage, and support in the implementation of the resulting recommendations (*transformative actions, implementing actions for real, turn my plans into action*). The desire to continue the project was sometimes accompanied by a suggestion of intellectual satisfaction (to go a step further *out of curiosity, to analyse more deeply*), and also an implied request for advice that the researchers are not able to satisfy (*to have shorter, more frequent discussions*).

4.1.2 The business leaders' involvement

A second interesting result deals with the learning process. Rolling out the research established trust between the different parties. Reservations were sometimes voiced regarding the disclosure of figures, but this was more through humility than a desire for secrecy.

Leader E was initially surprised when we raised the issue of remunerating value. The ratios calculated showed where his investments were going and the cost of supplies. He said that he would talk to his brother who was responsible for accounting (July 2010).

Leaders of SMEs rarely spontaneously take time to reflect in a detached manner; the research provided such an opportunity. The increased involvement of the leaders in the research is testimony to the meaning the tool provides. Along the way, any vocabulary relating to the GRP (generation of value, remuneration of value, participation in value exchanges) and that used by BM specialists (value proposition, value network, etc.),

introduced by each pair of researchers, was gradually assimilated by the leaders and integrated into their vocabulary, sometimes fairly early, sometimes by the end of the task.

Leader E: “What do you mean by remuneration of value? What this supplier gives me? Ah OK, yes, that is an important question...” (April 2010)

One of the SBC leaders used the term BM for the first time in his oral presentation to his colleagues, with a thorough understanding of its scope, even though he had never used it during the preparatory talks.

The support material for the presentation on 30th November 2010 was approved and finalised with the collaboration of leader D. In an email sent on 23rd November, the leader said: “I am expecting you tomorrow as agreed. I have taken the liberty of making some comments in the document that you sent me”.

At the group meeting on 13th July, the research pair presented the GRP grid to leader D (absent during the meeting that presented the model and launched its research protocol), who immediately made the connection with the range of questions raised during the first three meetings: “Ah, now I understand why you asked me all those questions”. Her involvement in the effort made to represent her BM was remarkable. During the preparatory meeting on 24th November, the leader expressed the desire not to take the floor on the 30th, or to do so as little as possible, ‘just to add a few complementary remarks’, but in fact, on 30th November she participated very actively in the presentation.

In the course of the discussions related to part P, one young leader (A) found that filling in the matrix of stakeholders was a particularly stimulating and entertaining exercise, and became totally absorbed in it: “Your table really speaks to me: I’ll fill it out myself”.

The interactions during the field visits showed how the vocabulary was integrated, but it was during the final presentation of the BMs to the entire group of research protagonists that this became remarkable. The leaders did not all adopt this vocabulary spontaneously, but the remarks each of them added to the researchers’ discourses clearly demonstrated an understanding of the concept, its components and its nature, i.e. a convention. It is the P dimension (participation) of the GRP model that appears to enable this kind of training. The BM is obviously sensitive to business networks. It emphasises the importance of relationships that are maintained by exchanges with the stakeholders, enabling these relationships to be appreciated and sometimes improved.

Intense discussion between the two leaders of company SBC: “I am more focused on administrative aspects, while you are more focused on technical aspects [...]. That gives you a picture of everything that happens here. You can see that there is something for everybody”. (May 2010)

A: “The BM will be very useful for telling our accountant certain home truths...”. In this particular case, the company’s accounting is carried out by a person who is competent to perform the tasks, but does not employ any particular procedures. The BM is used here as a communication tool for identifying a malfunction, while at the same time depersonalising the source of the contention: agreement can be sought in reference to the convention, which is stronger than any one leader.

4.1.3 *The roles of the leaders and the researchers during the AR process*

Another interesting result has to do with the evolving roles of both researchers and leaders as well as the changing place taken by the tool during the AR process. As we saw, the first meeting point between the researchers and the FFCI centred around the BM as a useful tool for young leaders wishing to exploit the entrepreneurial potential of their organisation. The BM's original context – business creation – was transferred to business development. The researchers would use the BM in the construction industry environment so that leaders could appreciate the tool as a means of developing the entrepreneurial potential of their organisation. The researchers had to teach and the leaders needed to learn, the researchers had to ask questions using the GRP grid and the leaders had to answer the questions understanding the tool progressively. Therefore, the procedure consisted of assessing the leaders' ability to understand the BM and then their ability to perceive the value of mobilising it. Now, the leaders could only perceive the value of the BM if they made an effort to understand it, and they could only do this if they could be sure that their effort was worthwhile. At the same time, researchers needed to translate the tool from a business creation context to an organisational context and fit into the worlds they were studying. Step by step, both researchers and leaders did not interact as detached outsiders. They assumed a continuum of roles ranging from the empathic but less involved participant to the fully committed participant: researchers assuming their transferring role in order to better observe and understand (Adler and Adler, 1987); leaders counter-transferring as they progressively understood the BM and recognised the value of implementing it.

4.2 *The GRP model relevance in the context of existing firms*

4.2.1 *New questions arising from the GRP model*

Working on the BM, the five leaders were led to ask themselves questions that they would usually not ask, or only rarely. The BM enables, for example, considering an expansion of the circle of partners, i.e., to integrate the idea that stakeholders are not restricted to close collaborators or to people seen often.

B: "Ah, yes, we have a special relationship with this supplier. We don't really have a contract, well, it's more of a moral contract [...]. We are partners; for example, we are featured on their website".

After an initial one-hour interview, leader C mentioned the importance of the choice of the remover (asbestos removal BM), an external contractor who analyses the quality of the air after asbestos removal: "The remover that we use is a little more expensive; so what is his contribution? By being more responsive, he enables us to reduce the time it takes to complete a site". In another interview, when he learned about the network of relationships he said, "this network of relationships is complicated, and then there is the dynamic between each element".

The research pair presented a wider array of stakeholders to leader D which provoked some interest. In particular, she realised that her company was international (Spanish and Belgian suppliers). Furthermore, having spoken only of suppliers at the beginning of the interview, she gradually distinguished, as the discussions progressed, between those that she described as 'partners' and those that remained 'suppliers'.

Business thus needs to be redefined within a wider circle; furthermore, this redefinition of the BM could be the focus of a follow-up stage of the AR, as was explicitly requested by some of the leaders.

E: “Now, it is true we can add the subcontractors... they think like us, their way of working is similar to ours. Even if we do not use them very often, they need to be considered. And we subcontract to cleaning companies. That is not our work, they are part of the stakeholder group”. (April 2010)

The research also shows that working on the BM constitutes a form of training. Questions arise about conventions that make up the BM at other levels.

The B leader explained that, to build houses, it was becoming increasingly important to be able to manage land and therefore to deal with foresters: “These people have to be approached in a certain way. They are committed to certain values [...]. They will not necessarily accept the first deal that comes along”. (May 2010)

The conventions of the sector of activity in question are one example. Furthermore, the leaders have requested work at this level. The team is already looking for the most appropriate term to describe this type of convention, the term BM being reserved for use at company level rather than sector level.

E: “The problem is these rules of action in the economic sector. We want to produce quality [...]. If we comply with the sector and what our clients ask us, we could work to much lower standards [...] but that does not interest us [...]. It's true that this is both a strength and a difference that could harm us”. (May 2010)

At the first meeting at the company's premises, leader C declared the following as he was presenting the company: “You have to define a model, and you have to work a little differently from the others, you cannot subcontract your core activity”. This leader recognised the value of the BM very early.

4.2.2 BM visualisation outputs

The co-training demonstrated in the final presentation of the BMs was remarkable, and it was already apparent much further upstream in the involvement of the leaders in drafting the BM, and then in the creation of slides and the discussions generated by these formal translations.

E. “That, that is what really distinguishes us... the execution and rigorous monitoring of sites [...]. This rigorous monitoring enables our company to meet deadlines and to avoid various additional costs and losses” (leader during the reinterpretation of the BM, October 2010).

B insists on the fact that the insurer should be included in the overview diagram of the BM because it is a key partner. Thanks to a very long-standing partnership with no claims, B saves several percentage points of turnover in insurance costs (June 2010).

In this way, the leaders gradually saw their BMs emerge. Something which is of anecdotal value was in fact very striking: on reading the first attempt to draft the BM, one of the leaders (A) could not contain his emotion at seeing such a faithful representation, even if was condensed, of the image that he had of his company.

“Everything is there, my company, my father's life, these pages hold it all”.

This type of reaction is not often mentioned in Management Science research; perhaps because, quite simply, it is unusual. Modelling enables people to visualise, and this experience touched the leaders who were all too often busy with their ‘heads down’, ‘getting their hands dirty’.

While creating the slides for the final presentation, leader C showed great interest in the slide with the stakeholders that the pair of researchers proposed. He found this slide very concrete: “I learned one core value from my father: entrepreneurial fibre; from my wife, I learnt how to share; and from my children, support. I must enable them to flourish; that would be good. I’ve done it for my children, but I don’t know about the others...”. And again during the group preparation of the slides and presentation: “what about afterwards, is there is another phase? The value of the model is that it has been built; once it is finished, we can work on it. But I am getting ahead of things”. The leader had seen the value of the BM, and wanted to continue the experiment; he expressed this desire again on other occasions.

The modelling of the GRP has been proved relevant.

Leader E appreciated the co-constructed visualisation of the model. He raised questions about the diagrams, he understood them and corrected them (July 2010, unrecorded interview). He seemed particularly satisfied during his final presentation in November, both happy and a little surprised to now ‘own’ the model, and he fully mastered the tool in the oral presentation to the other leaders.

4.2.3 *The BM evolution*

The work on the MLI chart also generated plenty of discussion. Initially it enabled the formulation of the strengths and weaknesses of the BM, as presented. It also opened up research prospects, as the ‘would be interesting’ column suggesting which elements of the BM could be reworked, or which actions could be implemented to further develop a positive point (for example, increase communication on a particular skill or service), or to reduce the impact of a negative point.

A: in this case, the work was at the origin of a strategic change – a change of target market – that the leader had already sensed and that the analysis of the BM confirmed, enabling a decision to be taken.

Furthermore, the GRP model continued to be fruitful several weeks after the discussions with the researchers. In fact, one of the leaders used the BM that had been created to provide the headings for his new website.

D: The production of the BM and the use of the MLI tool enabled the leader to formulate and weigh up the levers of action that could be used to develop her company:

- Emphasis placed on the need to re-launch the transmission process
- Possibility of giving responsibility to her brother and other employees in the company (including the shop foreman) to assist with the technical side of the business
- Improvement of communication on the value created for employees as a way of reducing the difficulties in human resources management
- Implementation of a proper marketing policy...

The B leaders emphasised on several occasions that the BM of a company needs to be reviewed over time because people's expectations can evolve. They recalled that, when they took over the business, a BM was in place and they had been obliged to change it: "We had the staff that were there. But when we began to produce statistics to measure what each person contributed, we turned everyone against us" (May 2010). In five years all the staff, no matter how long they had been there, had gone.

The C leader plans to create a small group (adding new activities to their company); the work on the BM provided a means for him to test the feasibility of this strategic vision.

As a result, the leaders are very interested in continuing the work, and opening the research to the formulation of an idealised version of the BM; and then considering the actions needed to move from the BM worked on here to this idealised version.

B: "This could be a tool that allowed us to see ourselves from the other side of the mirror [...]. We know that we need to change permanently. You cannot just change the works supervisor; you have to change the procedures!" (May 2010)

E: "Yes, we need to think with this tool in order to be able to do better". (October 2010)

5 Discussion/conclusions

We studied the relevance of the BM concept for business leaders in the French construction industry mobilising the GRP model. By doing so, we add to the BM literature in several ways.

Firstly, this research proves the BM relevance in existing firms. Prior empirical studies have either taken the perspective of business creation and internet start-ups (George and Bock, 2011; Morris et al., 2005; Tapscott et al., 2000) or focused on the design of successful BM based on high-tech innovative firms or important organisations (Chesbrough and Rosenbloom, 2002; Teece, 2010; Zott and Amit, 2008). We show that in traditional small-sized companies, where strategic tools are rarely mobilised, entrepreneurs actively seek relevant methods and tools that may increase their competitiveness. They reject strategic tools often conceived for large-sized companies, but look for advice and new approaches that take into account the entrepreneurs and their ecosystem. Our findings thus prove that the BM can be taken out of its original context of start-ups, and used with existing organisations.

Secondly, researches about the BM concept are often conceptual rather than empirical (i.e. relying on primary data and not on illustrations). We therefore add to the literature on BM by empirically showing how the GRP model, a BM representation, was understood by business leaders in a traditional industry, and how they acknowledged the value of implementing the BM in the perspective of making their firms grow.

Thirdly, this study also contributed to the evolution of the GRP model. Among major improvements, the conviction exercise which was an explicit element of the P component became an implicit and omnipresent element of the three GRP components. The term 'value architecture' was rather conceptual and somewhat difficult to grasp by the entrepreneurs. The term 'ecosystem' was chosen to better explain value network, and focus on different macro-economic dimensions impacting the firm, such as the legal, political, economic, social, technological and environmental factors. We also observed

another significant constraint that emerged during the ‘public’ presentation of the BMs (phase 5).

Each group of three (two researchers, one leader) developed the representation of the BM in a particular textual and graphic format. The researchers felt, and the leaders explicitly stated, that this aspect could be improved by systematising the presentations. BM studies which were conducted after the action research adopted a more standardised representation in order to facilitate comparisons. The need for visualising BMs through materials such as diagrams, symbols, drawings or any other medium that can be shared among stakeholders, matches the literature. Visualising helps managers not only to synthesise the amount of information they have to cope with (Zhang, 2012) but also to foster interpersonal relationships. Indeed, using visuals may improve communication among managers and knowledge co-construction (Eppler and Bresciani, 2013). Moreover, with this approach, the interview chart could be partially simplified, which would lead to shorter but potentially more frequent collection sessions (meetings, telephone and internet contact), as proposed by some of the participants.

Bringing together 11 researchers and five business leaders in a sector that has been the subject of relatively little research in management science is an original contribution. More broadly, our research contributes to the nature and focus of entrepreneurship research in France, through its choice of a qualitative method, its conceptual contribution, and the study of the entrepreneurial process (Lasch and Yami, 2008).

This study contributes to practice by improving entrepreneurs’ understanding of the nature of the BM due to the work on the P dimension of the GRP, which on the one hand showed that entrepreneurship involves partnership, and on the other provided an invitation to work the relationships network; this represents a return to the theory because, following the model adopted, the BM is a convention (cf. theory of conventions). Our results point entrepreneurs to the relevance of searching for the management of the components of value and also of understanding the way they are connected and overlap. Our results are important for institutional actors as well. Given the required expertise and network structure to guide existing traditional firms, it might be a good strategy for institutional actors to develop partnerships with researchers and consultants trained on innovative tools and methods – as was the case during this action research conducted through the cooperation with a federation.

This research has a number of limitations that lead to directions for future research. Firstly, we noted some frustration that the work had not gone further, for example concerning the role that the BM could play as a tool for reflection (for the leaders), beyond its diagnosis role. The visualisation of BMs encourages a liberated approach (similar to cognitive mapping, cf. Audet, 1994), i.e. it helps participants to think of things that they would not have thought of without this visualisation. On this basis, the BM can be used creatively as a design method, transforming it into an essential tool. The work on the MLI chart, as noted earlier, also generated an expectation of work on an idealised or desired version. This expectation is consistent with using a BM road-mapping approach (De Reuver, 2013) to move from an existing to a desired BM.

Another limitation relates to the sample, as the leaders could be said to have been recruited by the FFCI. It is possible that the participants were selected for their ability to make themselves available, which is not always easy, as the researchers were able to observe. Ultimately, all the leaders offered a higher availability than could have been expected, the perceived value of the BM not being unrelated to their commitment. The BM can be used as a creative tool in strategy formulation. Following up this research

would, in all probability, initially involve imagining a new idealised version of the BM, based on what has been drawn up, this time for the future. As the leaders are already aware of the GRP model, this model would become the basis for formulating a desired future, which would require imagining developments in the company's sector of activity, within which the BM would have to transform itself (regeneration). We hence return to heuristic conceptions of the BM.

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Notes

- 1 Table 1 was transformed into an interview grid (this grid is several dozen pages long) to conduct this research in the construction industry.
- 2 Carrier (1997) reminds us that the more or less interesting method (MLI) was developed by Bono. In the context of this research, it was not used in a creative fashion, but rather to identify strengths, weaknesses and aspects that merited work in relation to the BM that had been established.
- 3 The meeting was held in the presence of the departmental president and the national delegate for relations with higher education, the secretary-general of the FFCI, the 11 researchers and five leaders and an observer from the FFCI; also a young leader whose organisation was not however being studied.