Booster Cards: A Practical Tool for Unlocking Business Model Innovation

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Booster Cards: A Practical Tool for Unlocking Business Model Innovation

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Abstract

Business model innovation is an interesting yet challenging teaching area. Both teachers and students encounter barriers, such as dominant logic and a limited level of capabilities. In this paper, we present an analogy-based approach to enhance the teaching process and elevate student motivation using business model stimulus cards.

Keywords: Business models, business model innovation, teaching

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Introduction

Many different fields of teaching and researching business models (BMs) and BM innovation (BMI) exist. The diversity of the research fields raises questions on how to teach BMI to students and enable them to unlock the complexity of applying BMI. Massa and Tucci (2013) suggested splitting the notion of BMI into two categories: BM design and BM reconfiguration. The first is related to inventing new businesses and BMs, whereas the latter concerns restructuring and generating new ideas within existing BMs. The notion of BMI (both designing and configuration) is a challenging and complicated art (Teece, 2007). Although research within this area has been quite heterogeneous, Wirtz and Daiser (2018) derived a generic seven-step BMI process in their systematic review, namely analysis, ideation, feasibility, prototyping, decision-making, implementation, and sustainability. This paper will contribute by identifying a way to enable BMI in teaching, especially in the earlier stages of BMI, such as ideation.

When addressing the issue of teaching BMI, one needs to understand some of the inherent barriers in addressing innovation. The typical barriers that teachers face are related to the dominant logic and level of capabilities of their students. The dominant logic comprises how the firm creates and captures value, which can be difficult to assess due to prejudice and other subjective matters (Bettis and Prahalad, 1995; Chesbrough, 2003). The level of capabilities in this sense refers to the restrained repertoire of a person’s ability to see new ideas (Pisano, 2006). These issues are, in our experience, common when students try to develop new BM ideas in a BMI process. Often, the restraints are less challenging when addressing new business designs but become more complex and challenging when doing BM reconfiguration (Teece, 2007; Massa and Tucci, 2013; Lüttgens and Diener, 2016).

Thus, teachers often must overcome these barriers of underlying assumptions in the dominant logic and restrained capabilities. If not appropriately addressed, the result will be a limitation of the potential variety of inputs to the BMI process (Rumble and Minto, 2017), as students will often replicate and conform to the known norms (e.g. de Jong and van Dijk, 2015), arguably compromising the idea of teaching innovation in the first place. Nonetheless, there are several techniques to overcome these barriers, enabling the teacher and class to stimulate novel and creative ideas through BMI.

In the literature, there have been various suggestions on how to improve the ability to innovate BMs. One of the topics concerns the idea of using experiments to generate different solutions (Ahokangas and Myllykoski, 2014) and ultimately identify the optimal solution (Chesbrough, 2010). However, this quickly turns into a ‘catch-22’ paradox because the experiment designs are often restricted by the dominant logic present in the individuals and by their (limited) capabilities. This is why we have invented a set of booster cards to help students create experiments and develop better and more original BM designs and BM reconfigurations. In line with the work by Smith (1998) on creative triggers, we intended the booster cards to act as a stimulus to amplify the idea generation process. Smith (1998) distinguished between the following three types of stimuli:

- Concrete stimuli (Higgings, 1994): Use physical items or pictures in idea generation sessions.
- Related stimuli (VanGundy, 1988): Provide stimuli that are connected to the problem-solving task.
- Remote stimuli (Rickards, 1974): Provide stimuli that are unrelated to the problem-solving task.

The booster cards essentially combine all three types but are mainly based on related and remote stimuli. We do this by only providing topic-specific stimuli (hence, the BM configuration typology), while simultaneously forcing the students to assess and reflect upon the individual and sometimes unrelated BM configurations. The latter refers to BM configurations that immediately appear illogical or distant to the case at hand. In other words: the booster cards will constitute ‘provocations’ to enable the students to think ‘outside of the box’.

Converting BM typologies into playing cards is not a new invention (e.g. the BMI Lab at St. Gallen University developed BMI Pattern Cards; see Gassmann et al., 2013, 2014). However, we did not find these cards comprehensive to our satisfaction in terms of typology and categorisation. A decision was made to develop a

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*A catch-22 is a paradoxical situation from which an individual cannot escape because of contradictory rules (e.g. a bank will never issue someone a loan if they need the money).*
deck of playing cards designed according to an already-defined BMI framework: the 5V framework by Taran et al. (2016). This will be elaborated on in greater detail later in the article.

The booster cards are built on the principle of creating analogical reasoning. Analogical reasoning is understood as applying insight from one setting to another, which is a method found to be useful for creating novel BM ideas (Gavetti and Rivkin, 2005; Martins et al., 2015; Rumble and Minto, 2017).

A known example of applying analogies is Nespresso. Traditional coffee machine manufacturers focus on selling machines with high margins, which is essentially the core of their BM. In contrast, Nespresso coffee machines are sold with a low margin, but the company compensates by earning high margins on the coffee pods. At the core of the BM, Nespresso is creating a lock-in effect towards the consumer, as the machines only can be used with Nespresso pods. Nespresso developed and succeeded with this BMI by adopting elements (or analogies) from the razor-and-blade model known from Gillette (Matzler et al., 2013), and many have since tried to copy them in the industry.

The story of Nespresso shows the strength of using analogies by removing the constraints of dominant logic (coffee machines are the core) within the same industry or sets of assumptions. Furthermore, a set of different BM patterns or recipes (Baden-Fuller and Morgan, 2010; Osterwalder and Pigneur, 2010; Taran et al., 2016) can help overcome the limited capabilities of students, for example (Rumble and Minto, 2017).

The booster cards help break the barriers of dominant logic and the limited capabilities by enabling students to experiment with various ideas through different analogies of the cards. These analogies support students to overcome their dominant logic from a given context and further provide a range of diverse alternatives, reducing the barrier of limited capabilities.

The cards are based on 71 different BM configurations identified in the work by Taran et al. (2016). Each card in the deck represents a specific configuration and contains a short description of the configuration and real-life example to strengthen the analogy further. The description might give room to gain context-free ideas, but if the students are having issues with generating ideas or understanding the concept, the real-life examples often spur them in the right direction. An example can be found in Figure 1, where the configuration ‘Free for advertising’ provides both a short explanatory text of the general concept and empirical references (in this case of Facebook and Google).

Figure 1: Examples of booster cards.
Thus far, the cards have been tested in different contexts ranging from more than 125 business administration students at the bachelor’s level in a workshop-teaching format to more than 30 international business master’s students in a traditional classroom setting for three years. The cards have also been tested with professionals and business developers. Through various trials, the booster cards have proven to act well as a facilitator of discussing different business opportunities and future scenarios by providing new ideas on how to design or reconfigure BMs. We will elaborate on these outcomes later in the paper.

**Approach**

**Initial understanding and requirements**

The booster cards can be implemented in various settings, such as a workshop with practitioners and lectures with students. The latter will be exemplified in the paper. It is essential to add that the cards function primarily as a facilitator or add-on to use in the teaching context. The participants will need a basic understanding of BMs, and it is also preferable to have experience in working with a BM framework, such as Osterwalder and Pigneur’s (2010) BM canvas (BMC). The notion of a framework (e.g. BMC) helps to illustrate how the cards affect a given BM, which is an essential element in BM reconfiguration. However, as mentioned earlier, this paper will focus on the earlier stages of BMI.

Following the original work of Taran et al. (2016), the 71 cards are divided into five different categories. These five categories address key areas found throughout both empirical and theoretical BM research in the following ways:

- **Value proposition (VP):** What is the company offering (pink cards)?
- **Value segment (VS):** To whom is the company offering it (green cards)?
- **Value capture (VC):** How much and in what way does the company generate revenue (brown cards)?
- **Value network (VN):** With whom does the company collaborate to develop, distribute, and/or sell the offering (blue cards)?
- **Value configuration (VCo):** How does the company develop and distribute this offering cost-effectively (yellow cards)?

The number of configurations (i.e. cards) is not evenly distributed across the above-mentioned categories. As such, there are 23 VP, 8 VS, 14 VC, 10 VN, and 16 VCo cards.

The Taran et al. (2016) framework was chosen because it offers an increased number of categories and configurations compared to other frameworks. Previous to this study, the only academic work on BMI cards was found in Gassmann et al. (2013). In comparison, the Taran et al. (2016) framework 1) employs five categories instead of four (resulting in a clear separation between the BM elements of customers and distribution), 2) entails the most exhausting list of configurations (71 compared to the original 55), and 3) offers the most recent review. We have also found other BMI cards, all of which comprise 50 to 68 cards (e.g. boardofinnovation.com, businessmakeover.eu, and methodkit.com). Nevertheless, none of these are scientifically derived but rather are based on practical work, experience, and consultancy tasks. In short, the 71 configurations offered by Taran et al. (2016) comprise the most extensive, scientifically developed, and updated list we were able to find. For further information about the configurations, we refer to Taran et al. (2016).

In the teaching setting, the initial approach would include one or several lectures introducing BMs in general and potentially the BMC. Using the terminology of the BMC helps to frame the experiments that the booster cards facilitate. Figure 2 exemplifies how the configuration of ‘leasing’ not only affects its main category (VC) but also how designing or reconfiguring a BM to the leasing configuration would affect other parts of the BM. The effects are not explained in the cards, as they are different from case to case; hence, the participants will need to reflect upon these in each situation.

Having established the basic knowledge regarding BMs, it becomes essential to frame the notion of BMI and how experimenting with the cards is meant to improve the students’ ideas. In entrepreneurial courses, the cards are more relevant in the lines of BM ideation, where they can be explored as inspiration to generate novel BM design ideas for new business opportunities, problems, or projects. In settings where students work with real-life cases (e.g. established companies with existing BMs), the cards provide new
inspiration to stimulate BM reconfiguration. In both instances, the cards enhance the experimentation with ideas that might not have been produced without this stimulation, thereby overcoming the cognition biases of the dominant logic and limited competences of the students.

Following Byrge and Hansen (2014), we found that the approach of first working individually, then in pairs, and lastly all together in the group (presented in Steps 5-9) will enhance the ideation process by bringing more knowledge into play. If time is short, Steps 3 and 6 could be skipped.

**Using a real-life case**

The approach described above has also been tested several times with real-life cases where a business representative (e.g. owner, manager, or an employee) presents their company in front of the class, potentially stating an innovation dilemma. As stated in the introduction, the company is often restrained by the dominant logic or/and capabilities; hence, they are prepared to seek inspiration from other sources, such as students. To ensure the students are not predominantly influenced by the logic and constraints of the company representatives, the use of analogies through the booster cards aids the students to have an open mind and generate novel ideas continuously.

In this setting, it is essential to have the students map the company’s current BM using the BMC (or other BM frameworks) as an initial phase before the steps mentioned above; otherwise, the students will have a hard time understanding the underlying basis of the company case. The students can also use the booster cards to identify the current patterns or configurations of the company to understand and interpret the current setting. Subsequently, the students are asked to either generate new ideas or innovate in the current setting.

The process could evolve around various objectives, such as targeting specific customer problems, innovation issues, or technological challenges, or it could merely be an open task.

As stated earlier, the students often rely heavily on the logic or context presented by the company if the process is not facilitated. If a real-life case gives away too much information about the vision for the future, the students end up developing ideas that are not new to the company or novel or interesting in any way. We experienced this when a company accidentally told the students that their next market would be wholesalers. Afterwards, around 80% of all the ideas developed by the students addressed wholesalers as the ‘new

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2 Interpreting is also an often-found phase in analogy models (e.g. see Rumble and Minto, 2017, for more details).
innovative strategy’ for the company. The example shows how quickly students absorb dominant logic and experience difficulties, diverting from it.

From our experience, fostering novel ideas and new insight occurs more frequently when the cards are incorporated as a medium in the ideation process right after the mapping of the existing BM. The booster cards provoke new thought patterns and thereby amplify the pool of ideas the students are creating. The analogies and stimulation through the cards help the students develop relevant ideas that are directly transferable from the cards. Other times, the students have ‘wild’ ideas that are not related to the cards, but the line of thought was initiated using the cards. Although these initial ‘wild’ ideas are unrealistic, we have seen many examples where they eventually spur new ideas that are viable.

An example of the above was observed during a real-life case workshop where the company in question had too-high costs. From the card representing the configuration ‘external sales force’, one group had the idea of only having salespeople from low-income countries. This idea was pretty ‘wild’ and unrealistic, but together with the booster card representing the configuration ‘target the poor’, they started wondering why the company did not address low-income countries. As the company made modular products, the relatively high production cost could be lowered by the economy of scale, making the market of developing countries attractive as a new source of income. In essence, the

### Table 1: Booster cards manual

<table>
<thead>
<tr>
<th>Steps / Duration</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 15 min</td>
<td>Form groups consisting of approximately 4 students. <strong>Aim:</strong> Form dynamic working groups</td>
</tr>
<tr>
<td>2 10-15 min</td>
<td>The students are then asked to browse through all 71 configurations cards to get a brief understanding. Set aside 10 min for browsing and a few minutes for questions that need to be discussed in the plenum. <strong>Aim:</strong> Basic introduction and understanding to the configurations</td>
</tr>
<tr>
<td>3 Depends</td>
<td>This step is optional. The teacher or students could here identify areas, where they want to focus and hence select the group of cards associated to this focus. For example, if the students want to work primarily with the revenue streams or value capture, the students can choose to primarily use the brown (value capture) cards. <strong>Aim:</strong> Narrow the idea generation process.</td>
</tr>
<tr>
<td>4 Each group member hereafter draws five booster cards from the deck to start the ideation process. <strong>Aim:</strong> Stimulate/provoke through random and unrelated inputs</td>
<td></td>
</tr>
<tr>
<td>5 15 min</td>
<td>Individually, the students should now try to generate BM ideas based on the cards he/she has for 10-15 minutes, without talking to each other. <strong>Aim:</strong> Idea generation, problem solving, prototyping</td>
</tr>
<tr>
<td>6 30 min</td>
<td>In pairs of two, the students should now exchange their ideas to be co-developed even further (5 minutes per participant for all ideas). This round continues until all possible pairs in a group have been created and co-developed together. <strong>Aim:</strong> Stimulate/provoke through random and unrelated inputs</td>
</tr>
<tr>
<td>7 10-15 min</td>
<td>Each student should individually assess which idea is the best, based on an assessment criteria made by the teacher. It could be the most novel idea, the most viable etc. (1-2 minutes). <strong>Aim:</strong> Idea assessment</td>
</tr>
<tr>
<td>8 25 min</td>
<td>The students will individually prepare a short presentation of their best ideas (one to three) either as a short narrative or using the BMC as a storyboard going through each building block one by one. <strong>Aim:</strong> Idea refinement and communication</td>
</tr>
<tr>
<td>9 25-30 min</td>
<td>Each student presents to the rest of the group. A short amount of time (approx. 5-10 minutes) should be devoted for feedback and discussion of each idea. <strong>Aim:</strong> Idea communication, idea refinement, and prototyping</td>
</tr>
<tr>
<td>10 15 min</td>
<td>Each group should determine which one or two ideas they think are the best, based on the criteria previously presented. <strong>Aim:</strong> Idea assessment and selection</td>
</tr>
<tr>
<td>11 15-20 min</td>
<td>Give each group 15-20 minutes to discuss the idea even further and prepare a group presentation of the configuration(s) they have recognised as the best. <strong>Aim:</strong> Idea refinement and communication</td>
</tr>
<tr>
<td>12 Depends</td>
<td>Each group performs a 5-minute presentation of their configuration in front of either an opponent group, company representatives or the whole class. Set aside 5-10 minutes for feedback on the idea from either the opponent group or plenum. <strong>Aim:</strong> Idea pitching and refinement</td>
</tr>
<tr>
<td>13 Depends</td>
<td>As a final step, have a discussion in plenum about the learnings and what further steps to consider when going from BM ideas to BM implementation. <strong>Aim:</strong> Frame the key learnings</td>
</tr>
</tbody>
</table>
original idea would have little chance of success, but
the evolution or development from the initial ‘crazy’
idea proved to be an important novel idea that the
company wanted to investigate further and eventually
implement as part of their future strategy.

In all the workshops and lectures that we have facili-
tated in this manner, the company representative has
always left with new inspiration and often reasonably
implementable BM ideas and innovation routes.

Key Insight
Through the use of analogies, the booster cards seem-
ingly provide a practical and understandable method
of breaking down some of the barriers in the often-
impeded BMI process. Repeatedly, students or compa-
nies become stuck within their inherent limitations and
dominant logic, which rarely spurs original ideas. With
a relatively minimal amount of preliminary knowledge,
students, companies, entrepreneurs, and business
developers can gain new inspiration on how to either
design or reconfigure BMs.

Furthermore, the booster card analogies and their con-
figurations are built on both generic text explanations
and case examples, which often makes the process very
intuitive for students at all levels. The cards provide a
hands-on and tangible approach rather than the more
‘fluffy’ theoretical approaches. The use of the booster
cards is especially relevant in courses that undertake
a practical approach to understand, innovate, and test
BMIs. Moreover, the booster cards and pertaining pro-
cesses have continuously led to new innovative ideas
and inspiration on how to innovate BMs, which was the
overall ambition of introducing the booster cards.

Reflecting on the learning outcomes of using the
booster cards, we have likewise seen positive results.
We have not performed statistical experiments but
have some experience that shows how students adopt
and apply the analogical use of the booster cards after
a workshop or lecture. Through written exam essays on
the topic of BMI, we have found that students apply
the knowledge from the booster cards and analogical
learning to explain different BM concepts and exist-
ing BMs of case companies. Consequently, this shows
that students gain a deeper understanding of the topic
and learning objectives of the course. Additionally,
students that are using the booster cards often man-
age to develop a greater variety of BM ideas. While
not statistically proven, the development of more BM
ideas was agreed upon by both the internal lecturers
and external examiners of the assignments. The same
type of evidence can be found in the vast number of
oral exams we have done over the years. Students who
have been introduced to the booster cards (and actively
used these in their project work, written assignments,
etc.) demonstrate better insight into the subject and
can have more complex discussions during the exam
compared to students without this knowledge. Moreo-
ver, the workshops have successfully generated novel,
inspiring, and applicable new BM ideas; hence, the case
companies, without request, have all expressed their
interest in participating again.

Discussion and Conclusion
The idea of using inspiration from generic BMs is not
new in a BMI setting. The booster cards are similar to
gaining inspiration from BMI patterns (Osterwalder
and Pigneur, 2010; Gassmann et al., 2014), analogies
(Rumble and Minto, 2017), analogical reasoning and
conceptual combinations (Martins et al., 2015), BM
recipes (Baden-Fuller and Morgan, 2010; Sabatier et
al., 2010), and so on. Nonetheless, the booster cards
offer the students a more hands-on experience, which
often supports the experimentation or ideation phase
of BMI, compared to directing them to a book or web-
page. The analogies of the cards help to break down
the main barriers to BMI, that is, the dominant logic
around how firms create and capture value (Bettis and
Prahalad, 1995; Chesbrough, 2003) and the missing
tendency to generate new ideas (Pisano, 2006).

The fact that the booster cards are not a standalone
solution might potentially also constitute their main
limitation. Students need a certain understanding of
the BM concept, and it is also preferable to have expe-
rience in working with a BM framework to use the cards
most efficiently. However, if this basic knowledge is
achieved, the booster cards are reasonably intuitive.
Furthermore, an advanced class could also address
related matters, such as the effect a new configura-
tion might have on the supply chain, management
accounting, performance measurement, and other top-
ics on how to operationalise the suggested changes to
a specific BM. However, due to limitations of the short paper format, these are not addressed here.

Another limitation worth mentioning is the time factor. In general, we recommend at minimum a three-hour workshop for using the booster cards, including a short introduction to BM configurations, the booster cards, and then the hands-on approach. Dedicating enough time is vital for the students to understand the booster cards and reflect upon their ideas and designs. If rushed, the result will typically be half-finished uninventive ideas, which they will be more reluctant to present. Ultimately, this will naturally negatively affect the learning output.

The most impressive part of using the booster cards as an analogy stimulus is the variety of BM ideas generated by the students. Even when applying the same business case in different workshops with diverse students, we have observed radically diverse BM ideas each time. In addition, the students appear to enjoy ‘playing’ with the booster cards even after the workshop session is over. For the students, it is not only a fun exercise, but they also gain more comprehensive knowledge and competencies in understanding and working with BMs. Ultimately, these skills will help the students fulfill learning objectives related to an innovation course. Hence, the adoption of the booster cards enables the students to not only reach the learning objectives of the course but also build valuable BMI skills for future employment.
References


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