BUSINESS MODEL DESIGN: AN EVALUATION OF PAPER-BASED AND COMPUTER-AIDED CANVASES

Boris Fritscher, Yves Pigneur
Faculty of Business and Economics, University of Lausanne, 1015 Lausanne, Switzerland
boris.fritscher@unil.ch, yves.pigneur@unil.ch

Keywords: Business Model Canvas; Computer-Aided Business Model Design; Guidelines

Abstract: In recent years, Business Model Canvas design has evolved from being a paper-based activity to one that involves the use of dedicated computer-aided business model design tools. We propose a set of guidelines to help design more coherent business models. When combined with functionalities offered by CAD tools, they show great potential to improve business model design as an ongoing activity. However, in order to create complex solutions, it is necessary to compare basic business model design tasks, using a CAD system over its paper-based counterpart. To this end, we carried out an experiment to measure user perceptions of both solutions. Performance was evaluated by applying our guidelines to both solutions and then carrying out a comparison of business model designs. Although CAD did not outperform paper-based design, the results are very encouraging for the future of computer-aided business model design.

1 INTRODUCTION

In a fast-evolving business landscape, companies need to turn to new methods to help them rethink their business strategy. By using a Business Model Canvas (BMC), they can get a better picture of their current business model, as well as create new ones. These methods are gaining in popularity, leading to the creation of a range of tools to support them. Thus, BMC design has evolved from being a paper-based activity to being one that is supported by custom-built computer-aided business model design (CABMD) tools. Such tools provide functionalities that are similar to the paper experience, but offer additional options such as version handling and calculation. However, in order to give free rein to creativity, the tools tend to be open in nature, making them difficult to use in a structured environment in which software tools are used. This is especially the case if the application is expected to assist the model itself. Guidelines can help by capturing and encapsulating knowledge that has been collected from best practice. This knowledge can then be offered to users. Elaborating guidelines helps in the design of more coherent business models; in turn, this helps to improve the way in which CAD can support business model design. Nonetheless, all these advanced CAD tools, which are aimed at supporting the BMC, are worthless if they hinder the creative-thinking process enabled by the paper version. However, if evaluation can show that a digital canvas is perceived and performs at least as well as a paper-based canvas, this promises great potential. For example, some features, such as automated guidelines validation, are only possible with digital tools.

The focus of this research can be summarized by the following questions:

Can guidelines help to produce a more coherent business model canvas?

How does using a computer-aided business model canvas design tool affect perception compared with using a paper-based version?

How does using a computer-aided business model canvas design tool affect performance compared with using a paper-based version?

In the next section we present any justificatory knowledge, followed by a short description of our methodology. We then present the guidelines themselves and the way in which they can be supported by CAD. Our evaluation also includes a business model case and an experiment aimed at comparing paper-based design with CAD. The results are presented, along with any lessons learned.

2 DESIGNING BUSINESS MODELS

According to Osterwalder and Pigneur (2013) there are three areas where IS research can contribute to strategic management. First, modelling at a strategic level requires a common language and representation. One business model visualization in particular is starting to be widely adopted by practitioners: the Business Model Canvas (BMC) (Osterwalder and Pigneur, 2010).

Second, the strategizing process should be seen as a design activity. Here, design means elicitation and testing; namely, the generation of ideas and their validation.

Third, they put forward the idea that CAD can *"make tasks easier and quicker, while revealing as-yet-unseen opportunities"* (Osterwalder and Pigneur, 2013).

For the purpose of our study, testing in business model terms represents two things: 1) coherence of the business model and 2) commercial viability of the business hypothesis. In this paper, we will focus on the former, since it can be addressed by CAD tools.

2.1 BMC Evaluation

The BMC design activity is usually a team effort that involves stakeholders across the company. A recent survey[1] of 1,172 users confirmed that 74% of them carry out design in groups of 2 to 10 collaborators. Moreover, from research undertaken by Reinig (2003: 65), we know that *"the satisfaction users have with the processes and outcomes of the teamwork itself often determines the ultimate adoption and sustained use of collaborative technologies"*. Therefore, it is important to compare users' perceptions of paper-based BMC with its computer-aided counterpart.

To date, few studies have sought to evaluate BMC design. However, Hoffmann et al. (2012) have shown that paper-based BMC design outperforms two other idea generation methods considerably. They noted that: *"The ability to select the best idea was found to be much higher when groups worked with the business model canvas: 80 per cent of groups selected the best idea"*. Their decision to limit their study to paper-based design was based on the extensive training and potentially expensive support systems required by electronic methods.

In their research, Lucassen et al. (2012) focused on how business model methods can be supported by software. They came to the conclusion that, *"BMC is the preferred method because it effectively models explicit information of both tangible and intangible aspects of the business and communicates this information in a highly accessible manner to parties unfamiliar with the modeling technique"*. However, they did point out that there is still room for improvement, because of a lack of clarity in the modeling process. Furthermore, they pointed out that knowing when the model is sufficiently correct is not explicit. This sustains the relevance of providing better business model design guidelines.

[1] Internal survey, Business Model Foundry GmbH 2012

3 A DESIGN SCIENCE APPROACH

In this study, we used the methodology put forward in design science research by Gregor and Hevner (2013). First, we explored how CAD can best support business modeling. This was carried out iteratively by building and evaluating prototypes. We also focused on the evaluation of the perception and performance of CAD business model design in comparison with paper-based design. We used existing artifacts such as the BMC and CABMD tools. Our evaluation has one particularity in that we chose to use a commercial instantiation of CABMD software. However, we did propose a new artifact in the form of guidelines, with the intention of making better use of them. The evaluation of this artifact is done by validity. Demonstrating that a coherent business model case can be created by following the guidelines.

4 TOOLS FOR BUSINESS MODEL DESIGN

To help in the design of a BMC we put forward guidelines, aimed at helping both the elicitation of new elements and the testing of coherence. These guidelines could then be transformed into actionable rules for use inside a CABMD tool.

4.1 BMC as a Paper-based Artifact

The BMC uses nine building blocks to represent a business model. These building blocks can be further grouped into four perspectives, as shown in table 1. The main perspective is the offer (what we do), which connects the client perspective (who we do it for) and the activity perspective (how we do it). Finally, the financial perspective deals with profit (how much?).

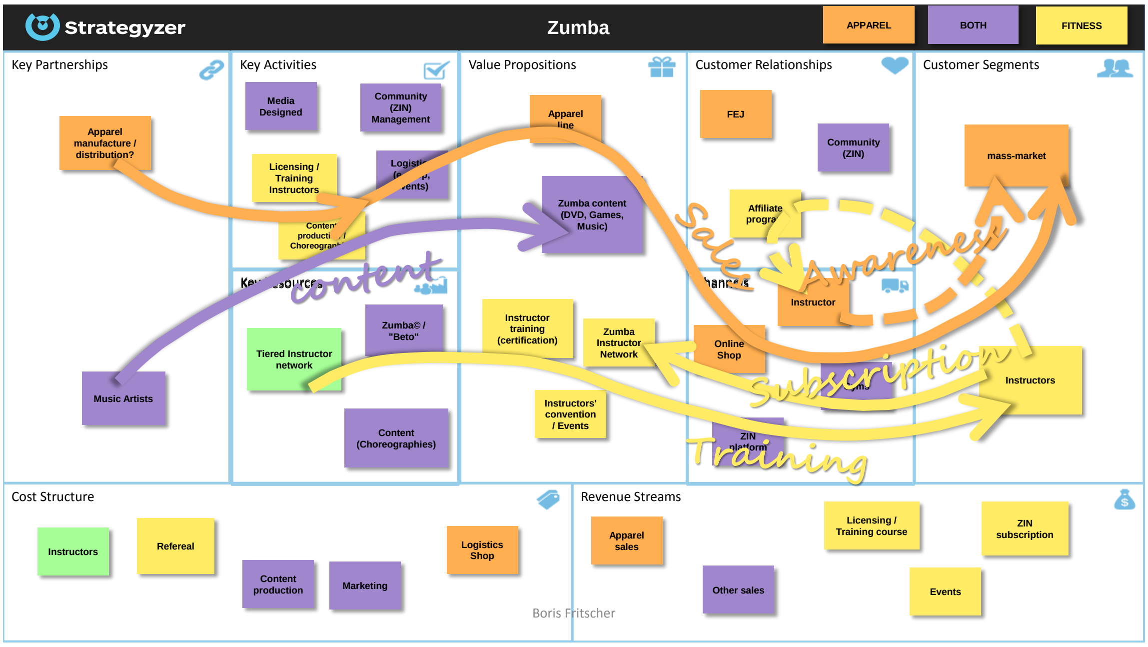

Figure 1: Business Model Canvas of Zumba Fitness.

The positioning of these nine blocks is very important. Visually, they form separate groupings, which helps to structure the thought process and facilitate comparisons between the business models drawn using this method. As can be seen in figure 1, the offer is in the centre; to the right is the client perspective and revenue stream, whilst to the left is the activity perspective and cost structure.

Table 1 Business Model Canvas Components.

Perspective	Question	Building block
Offer	What?	Value proposition
Client (right side)	Who?	Customer segment Distribution channels Customer relationships
Activity (left side)	How?	Key resources Key activities Key partnerships
Financial	How much?	Revenue stream Cost structure

There are three guidelines which help in the elicitation of business elements on the BMC.

A. Discover business model elements

Any elicitation technique is applicable. Many users go through the nine blocks one after another and add elements as if it were a checklist. However, this does not harness the full potential of the model, because its strength lies in the connectedness of elements from different blocks.

B. Improve business model through connections

A good BMC has all of its elements connected to at least one other; there are no orphan elements. Additionally, the number of elements inside each block has to be reasonable so as not to overload the visual appearance. This is accomplished by displaying only those elements that perform an essential role in the business model. Furthermore, the connectedness between elements helps in telling the story of the business model.

C. Highlight business model mechanics

By using big arrows on the top of the BMC to depict the flow of interaction, it is possible to visualize the story of the business model. In section 5 we use an example to illustrate the three guidelines.

4.2 BMC Coherence Guidelines

Testing a BMC's coherence involves the verification of control points on three levels: elements, building blocks and connections. We propose a set of guidelines for each.

4.2.1 Guidelines applying to any individual element

These guidelines help in maintaining a visually understandable BMC.

- There is only one idea per sticky note.
- Ideas are written with keywords, or presented with a simple illustration.

- The meaning of the element is understandable by all stakeholders.
- The element is a key component in explaining the business model; indeed, without it the business model cannot be explained.

4.2.2 Guidelines applying to individual building blocks

These guidelines help to identify the right amount of detail for the BMC.

- All nine building blocks of the model are used, or have at least been considered.
- Elements that are too detailed have been grouped into a simpler element.
- Elements that are too generic have been split into more detailed elements.
- The detail level of the elements are adequate (there are not too many detailed elements, nor to few which are too generic).

4.2.3 Guidelines applying to connections between elements in different building blocks

These guidelines help with the coherence of the BMC.

- Colors are used on elements to highlight their connections according to the BMC's meta-model (Fritscher and Pigneur, 2010)
- Each color is labeled and has a specific meaning.
- Client perspective is valid:
  - Each customer segment is addressed by one or more value proposition.
  - A channel supports a value proposition-customer segment set.
  - If present, a customer relationship targets a customer segment.
  - In case of multiple customer segments, colors distinguish each business side.
- Activity perspective is valid:
  - Each value proposition is produced/delivered by a key activity, a key partner or offers a key resource.
  - Key resources or key partners support an activity.
- Financial perspective is valid:
  - Revenue stream is generated from a value proposition-customer segment set. (A revenue stream can also be "free").
  - Major fixed costs are listed.
  - Major variables costs are listed.
- There are no orphan elements: all elements are connected to another element (in a different block to themselves).

4.3 BMC Computer-Aided Design

Multiple versions of BMC prototypes can be found, as well as commercial versions. Research prototypes emphasize advanced features; however, they lack finesse in user experience. In order to make the best comparison between a paper-based BMC and a digital implementation, we chose to use Strategyzer, a commercial version that is closest to the original paper-based BMC. This commercial software solution not only has a proven user-friendly interface, it has the added advantage of being inspired by the same original artifact ideas as our research prototypes. Another benefit is that it has calculation features which sit on top of the basic functionality features, showing that integration is possible without compromising the simplicity of the user interface.

When Computer Aided Design (CAD) is applied to the BMC, it can support elicitation by making it easier to move, duplicate and rename elements. Thanks to its digital properties, elements can also be hidden and shown selectively, allowing for multiple views of the same data. This enables the exploration of business model variants, thereby further aiding the elicitation process.

Beyond visual interactions, such software tools can be used to support business model design with features that are tailored to guarantee the coherence of the meta-model on which they are built. Guidelines can be transformed into rules, which can then be tested by the tool. In case of incoherence, a notification is shown on any invalid elements. Such visual flags can, in addition, contain hints on how to fix the problem or, at the very least, offer a reference as to which rule or guideline was violated. The computation is carried out automatically; thus, visual flags appear as soon as something changes.

Guidelines allow a coherence score to be attributed to each model; this score is based on the number of fulfilled conditions.

4.3.1 Example Guideline Transformed into Rules and Resolution Hints

Rule 1: There are not more than a specified number (given by a threshold) of customer segment elements with the same color.
Resolution hint: Either merge elements that are too detailed (building block guideline) or change colors of element belonging to a different value proposition to distinguish the segments (connection guideline).

Rule 2: A customer segment has to have a corresponding value proposition element with the same color as itself.
Resolution hint: Create missing elements or add right colors.

5 COMPARING COMPUTER-AIDED DESIGN WITH PAPER-BASED DESIGN

The focus of our evaluation is to compare a paper-based BMC with one created using a computer-aided design tool in terms of perception and performance. In this section, we first present how we created a business model for Zumba Fitness following our guidelines. We then go on to present the experimental setup, followed by the results and statistics.

5.1 Zumba Fitness Business Model

This case is used to illustrate how to apply our elicitation guidelines when designing the Zumba Fitness business model using publicly available information (as shown in figure 1). Zumba Fitness is a company that offers fitness training to instructors (yellow) and sells fitness apparel (orange) to the mass market. Separate colors were used for each type of offering. Elements that are affected by both value propositions are shown in violet.

A. Discover Business Model Elements
The discovery of elements, which can be added to any of the building blocks, can come from internal knowledge, interview, observation or indeed any kind of research method. However, it is crucial to move from one idea to the next without limiting oneself to one block at a time. Our main source of information for this case study was a six-page report by Inc magazine[2] and a video interview featuring one of the company's founders.

As should be the case for any presentation of the BMC, we will first present the elements as a story, instead of going through the blocks one at a time.

Zumba Fitness offers *Instructor training* to the *instructors* customer segment with the help of their *online ZIN platform* and *gyms*. Giving courses generates *licensing/training* revenues. A second revenue stream from *instructors* is a *subscription* to the *ZIN network*. This offer (value proposition) gives the *instructors* access to new *Zumba content* which they can use in their own Zumba classes. To provide the aforementioned value propositions, a number of key activities have to be performed, including *training*, *ZIN community management* and *creation of new content* (choreography).

Another customer segment is the *mass market*, namely, people who buy apparel from the *online shop*, thus generating *sales* revenue.

B. Improve Business Model through Connections
With any BMC, it is important to check the connections between the elements. This helps to identify any missing elements. It can also lead us to question the validity of elements if no connection to other elements can be found.

Continuing with our example, although fitness apparel is sold, its source is missing. Therefore, for coherence, *manufacturing & distribution* partners had to be added, as well as a *logistics* and *media design* activity, and the cost structure of a *logistics shop*.

The content creation activity produces new *choreographies*, not only as a value proposition, but also as a new resource. However, to produce such choreographies, the company also needed *music artists*; these become a new partner element. The creation of content (*content production*) is also a major cost in the business model. An additional resource, which gives value to their content, is the *Zumba* brand name.

C. Highlight Business Model Mechanics
Business Model mechanics help to visually illustrate major interactions between elements on the BMC. The flow of the interaction is depicted by large arrows, which connect the elements. Thinking about the mechanics and the story behind it will help reveal additional element interaction, which may not emerge when looking only at individual elements.

This case is particularly interesting, because a series of mechanics helps to reveal that instructors are also a channel. Zumba starts by *training/certifying* instructors; a major percentage of these instructors will then subscribe to the Zumba Instructor Network. A certified instructor goes on to give Zumba courses and naturally starts to promote the brand and its apparel. To build on this phenomenon, Zumba offers them an *affiliate program* (customer relationship). Thus, through awareness generation, *instructors* become a channel to the mass market. This supports the second mechanic, which is the *sale of fitness apparel* through the *online shop*. The third mechanic can be found backstage, in the form of generating content.

Having added *instructor* as a channel and an *affiliate program*, it is then necessary to check again

[2] http://www.inc.com/magazine/201212/leigh-buchanan/zumba-fitness-company-of-the-year-2012.html

Table 2: Descriptive statistics.

Variable	Mean		Std. Dev.		Min		Max	
Tool	P	S	P	S	P	S	P	S
Perceived Usefulness	2.38	1.83	0.98	0.69	1.25	1.00	5.00	3.50
Perceived Ease of Use	2.36	1.80	1.13	0.73	1.00	1.00	6.00	4.00
Task Outcome	2.27	1.85	0.80	0.72	1.00	1.00	4.33	3.33
Task Innovation	2.17	2.79	0.73	1.10	1.00	1.00	3.00	4.67
Total Elements	23.00	28.82	5.75	6.91	11.00	20.00	32.00	42.00
Correct Elements	16.81	15.64	2.62	3.91	13.00	11.00	20.00	25.00

P: Paper (21 observations), S: Strategyzer software (22 observations)

for any connections. In turn, this reveals that, to retain coherence, a *referral fee* has to be added to the cost structure. This demonstrates the need to iterate through the mentioned techniques and guidelines until everything is in a stable and coherent state.

5.2 Experiment Setup

Our experiment was aimed at designing a business model for the Zumba case using an article and a video interview as information resources. The evaluation was performed during a business model course attended by students from a master's program in IS. The students were all familiar to a similar level with the BMC method and web tool. A total of 43 students participated. They were split into 22 groups in order to have the most groups possible and avoid students having to do the task individually. Having teams of two people is a key component of generating creative ideas (Paulus 2000) and corresponds better to the normal use of the BMC.

Half of the groups were asked to do the design task using a paper-based BMC. The others used the chosen computer-aided business model design software and were not allowed to use paper at all.

Evaluation of the task was carried out in two parts. First, when a group considered their work to be complete, each student was asked to individually fill out a questionnaire to assess their perception of the task. Second, all BMCs were collected and evaluated to assess the performance of the groups' designs.

5.3 Results and Statistics

In this section, we present our measures of perception and performance, followed by their statistical analysis.

5.3.1 Measurement of Perception

For the questionnaire we decided to use questions and scales taken from existing literature (see appendix for the full question list). The concepts of perceived usefulness and perceived ease of use were adopted from TAM (Davis 1989). However, we simplified the questionnaire, reducing the number of questions by removing those with similar meanings, to avoid confusion amongst our non-native English speakers.

A measure of the perceived task outcome was added so that we could test whether there is a difference in perception between the two medias. In addition, this allowed us to make a comparison with the real outcome performance metric. The task outcome was adapted from Briggs et al. (2006). Here, we selected items from their meeting outcome and meeting process questions.

We were also interested in how media type impacts our perception of being able to generate ideas. For task innovation we used questions taken from (Torkzadeh and Doll, 1999).

All answers have a seven-point likert scale, which we coded from 1 (best) to 7 (worst).

Table 3: Pearson's correlation between concepts.

	PU	PEU	TO	TI	TE	CE
Perceived Usefulness [PU]	1.00					
Perceived Ease of Use [PEU]	0.54***	1.00				
Perceived Task Outcome [TO]	0.27		1.00			
Perceived Task Innovation [TI]			0.39**	1.00		
Total Elements [TE]	-0.28	-0.26			1.00	
Correct Elements [CE]				-0.32*	0.43**	1.0

P>|t| *** 0.001, ** 0.01, * 0.05

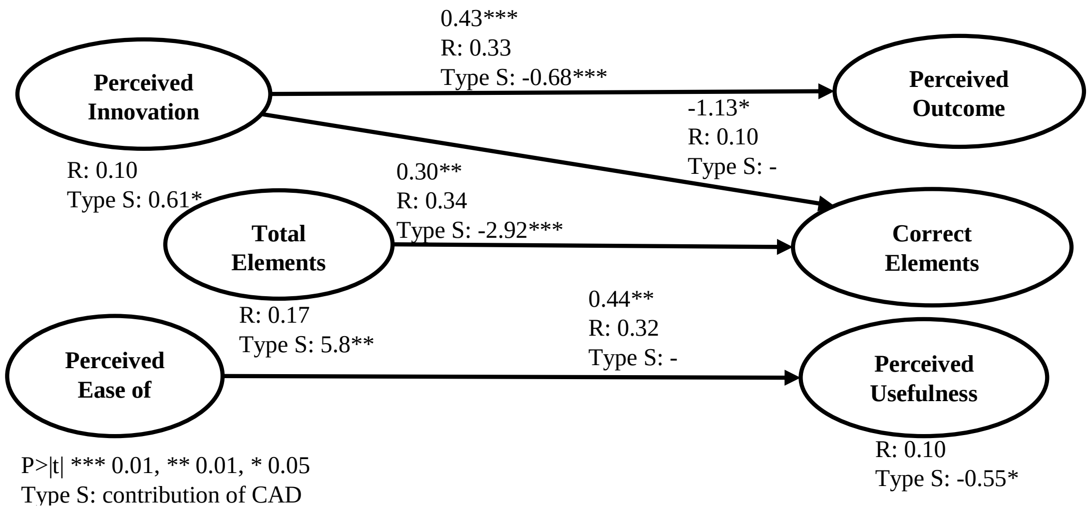

Figure 2: regressions between concepts

In order to analyse the concept, for each question we grouped the answer variables of each metric into a usable concept (latent variables) using Cronbach's alpha. The *perceived usefulness* concept is well defined by its four questions with an alpha of 0.75. For the *perceived ease of use*, we dropped question number 2.3 to get a better alpha of 0.71. For the *task outcome* concept we had to drop question 4.3 to get an acceptable alpha of 0.75. The *task innovation* concept is well described by its three questions with an alpha of 0.92.

5.3.2 Measurement of performance

The designed business model's performance was computed by comparing it with the solution developed by two experts who followed the techniques and guidelines presented in the artifact section. A total of 28 points could be achieved for the *Correct Element* measure. The comparison points were not all a direct match; if an element was similar in meaning to the solution, it was also accepted. There were no negative points for additional elements and the same evaluator corrected all of the BMCs. We also took into consideration the metric of the *Total Elements* in order to measure any differences in quantity generation between the media.

5.3.3 Descriptive statistics of results

As can be seen in table 2, answers are skewed positively, with a low average score for all the perception constructs. This indicates that overall the students had a very positive perception of the BMC, irrespective of the type. The computer-aided canvas was marginally better than the paper-based canvas on all the perception measures, except for task innovation. It also helped to generate more elements. Correct elements are very similar for both types. Element metrics of the computer-aided canvas showed the greatest deviation, with both the best and the worst number of correct elements.

5.3.4 Statistical analysis of concepts

We used the Stata 12 software package to perform our statistical analysis. After verifying the concept's alpha values we looked at the Pearson correlation between them. The matrix, which can be seen in table 3, helped us select the concepts that warranted further analysis with regressions to determine the impact of the type of media used.

The strongest correlation is between usefulness and ease of use, which matches TAM's theory. The correlation between the total elements and correct elements also seems natural. We did not penalize wrong elements, therefore the more there are, the greater the possibility of also having correct ones. Of particular interest is the correlation between task innovation and task outcome, and between task innovation and correct elements, which represents the real outcome. We explore these relations further in the discussion.

6 LESSONS FROM THE COMPARISON

A regression analysis was used on the variables for which correlations stood out. The results are shown in figure 2. Only links with significant regression results are shown. Type S is the contribution of using the computer-aided software BMC over the paper-based BMC. As already observed, with the mean values, *perceived innovation* is slightly better with the paper-based BMC, but the R-square value is only 0.10. On the other hand, *perceived innovation* strongly predicts *perceived outcome.* Users of the digital BMC perceived that it helped them do a better job more than did the users of the paper-based BMC. *Perceived innovation* slightly predicts *real outcome* (*correct elements*), without a difference between types.

On its own, *perceived usefulness* is seen as being better with the digital tool. This could be a bias of the population of IS students who are familiar with IT technology and might prefer a technical solution to one that uses paper.

There is no significant difference between the type that affected the influence of *perceived ease of use* over *perceived usefulness*. This can be seen as a positive result for the software tools, because it does not perform better or worse. Having at least the same ease of use as paper is a key result, which should be reflected upon when considering that the digital tool has the potential of offering additional features, providing usefulness that is not possible on paper.

The computer-aided BMC helps to generate more elements than a paper-based one; however, it also has a negative influence on the number of correct elements. It is easier to generate more elements, but also to generate more wrong elements.

Users who think that the digital tool helps them innovate, think they have performed better; however, in our small setup they obtained similar numbers of correct elements.

In addition to the statistical analysis, we also observed how the teams worked during the design task. One observation that is of particular interest relates to the process of eliciting elements. On the paper-based BMC, a discussion first occurs and then a sticky note element is created and positioned. On the computer-aided BMC, however, which also supports collaboration, elements are added first by each member and then changed to reflect the consensus. This is interesting because recording the decision inside the tool means that it can be utilized to better support the ongoing business modeling collaboration process.

Three weeks after the first task, we carried out a trial experiment with the coherence guidelines using paper. The results were varied and inconclusive, although users did say it helped them improve their model. Problems arose when attempting to test them on paper. In this situation, users have to perform the checks manually; in some instances, they do not take the time to iteratively do it as soon as they change something. Therefore we posit that although we showed that guidelines can be used to create coherent models on paper, it is more appropriate for such guidelines to be implemented and tested inside a prototype tool. Here, they can be recomputed each time a change is detected.

In summary, in our experiment with our test group, the tested CAD tool was as effective as paper-based design for the creation of business models in terms of eliciting elements of the BMC. This indicates that with the help of rules, it might be better suited for testing the coherence of business models than paper-based design.

7 CONCLUSIONS

To assist BMC design using software tools, we proposed guidelines that help with elicitation and testing in order to produce coherent models. Before implementing such features in a digital tool we needed to confirm that perception and performance on a basic BMC design task are at least similar to those of a paper-based design. With our evaluation we found that the tested digital tools can be perceived as useful, and does not perform any worse than its paper-based alternative. Even if CABMD did not outperform paper-based design, it shows some promising results, because such tools can be extended to offer additional features, thus increasing their usefulness. Features that are much better suited for digital tools include the continuous reviewing of coherence rules to check their validity.

In this paper, we focused on modeling an existing *"as-is"*, business model. Further research is needed to explore options that may enable the exploration of future *"to-be"*, business models. For example, rules could be extended to simulate financial assumption or validate regulatory constraints.

REFERENCES

Briggs, R. O., Reinig, B. A., & de Vreede, G. J. (2006). Meeting Satisfaction for Technology-Supported Groups an Empirical Validation of a Goal-Attainment Model. Small Group Research, 37(6), 585-611.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 319-340.

Fritscher, B., & Pigneur, Y. (2010). Supporting Business Model Modelling: A Compromise between Creativity

and Constraints. Task Models and Diagrams for User Interface, (LNCS 5963), 28–43.
Gregor, S., & Hevner, A. R. (2013). Positioning and Presenting Design Science Research for Maximum Impact. MIS Quarterly, 37(2).
Hoffmann, F., Eppler, M. J., & Bresciani, S. (2012). Business Model Ideation: An Experimental Approach for the Evaluation of Team-based Methods. 12th EURAM 2012 European School of Management
Lucassen, G., Brinkkemper, S., Jansen, S., & Handoyo, E. (2012). Comparison of visual business modeling techniques for software companies. In Software Business (pp. 79-93). Springer Berlin Heidelberg.
Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. John Wiley & Sons.
Osterwalder, A., & Pigneur, Y. (2013). Designing Business Models and Similar Strategic Objects: The Contribution of IS. Journal of the Association for Information Systems, 14.
Paulus, P. (2000). Groups, Teams, and Creativity: The Creative Potential of Idea-generating Groups. Applied psychology, 49(2), 237-262.
Reinig, B. A. (2003). Toward an understanding of satisfaction with the process and outcomes of teamwork. Journal of Management Information Systems, 19(4), 65-84.
Torkzadeh, G., & Doll, W. J. (1999). The development of a tool for measuring the perceived impact of information technology on work. Omega, 27(3), 327-339.

APPENDIX

The following questionnaire was used for our survey, either using *Strategyzer* or *the paper canvas* as subject.

Based on your short experience with Strategyzer, how would you rate the following statements when thinking about using Strategyzer for future Business Model Design Tasks?

The following seven point Likert scale was used: extremely likely (1), quite likely (2), slightly likely (3), neither (4), slightly unlikely (5), quite unlikely (6) extremely unlikely (7)

1 Perceived Usefulness

1.1	Using Strategyzer to design business model would enable me to accomplish the task more quickly.
1.2	Using Strategyzer would improve my performance in designing business models.
1.3	Using Strategyer would make it easier to design business models.
1.4	I would find Strategyzer useful for designing business models.

2 Perceived Ease of Use

2.1	Learning to operate Strategyzer to design business models would be easy for me.
2.2	I would find it easy to get Strategyzer to do what I want it to do.
2.3	It would be easy for me to become skillful at using Strategyzer to design business models.

The following seven point Likert scale was used for the next two sections: strongly agree (1), agree somewhat (2), agree (3), neither (4), somewhat disagree (5), disagree (6), strongly disagree (7)

Now evaluate your business model design task.

3 Task Outcome

3.1	I feel satisfied with the designed business model.
3.2	I feel satisfied with the process used to design the business model.
3.3	With more time I could substantially improve the designed business model.
3.4	I had enough time to complete the task.

4 Task Innovation

4.1	Strategyzer helps me create new ideas.
4.2	Strategyzer helps me come up with new ideas.
4.3	Strategyzer helps me try out innovative ideas.