

# Business Plan Vs Business Model Canvas in Entrepreneurship Trainings: A Comparison of Students' Perceptions

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## Abstract

Business model canvas and business plan are prevalent and widespread tools used in entrepreneurship trainings. This study aims to compare the business model canvas and the business plan as tools used in entrepreneurship trainings through the perceptions of business school students, with a user approach. Students were given applied entrepreneurship courses, and have been taught to prepare a business plan and a business model canvas. Then students were asked questions comparing business plan and business model canvas from various aspects. 62% of the students have stated that they find it more difficult to prepare a business plan. On the other hand despite its hardship to prepare, students have stated business model's superiority to BMC on several issues. According to students' statements, compared to BMC, business plan is more clear (64.6%), more useful (60.8%), more realistic in revealing the phases of start-up (77.2%), superior in financial planning (74.7%), superior in marketing planning (67.1%), superior in costs (70.9%), superior in describing customer needs and value proposition (60.7%), superior in production planning and supply chain (68.3%). After providing these statements students were asked which system they liked preparing the most. Answers to this question could not be decisively evaluated. Percentage of positive, negative and neutral statements are very similar. Independent samples t-test was conducted to compare business plan and BMC use perceptions scoring for gender. There was not a significant difference in the scores for female and male students.

**Keywords:** business model canvas, business plan, entrepreneurship, entrepreneurship training, Turkey

## 1. Introduction and Purpose of the Study

In the last decade entrepreneurship trainings became very prevalent in Turkey. Formerly trainings were only carried out by Small and Medium Enterprises Development Organization (SMEDO). Gradually trainings began to be carried out by contracted institutions and "SMEDO approved trainings" came out. As the certificate given to the participants at the end of these trainings is a precondition for applying for SMEDO new entrepreneur grant award, the number of trainings increased rapidly. To get this certificate, therefore the grant award, has become the major motivation of the participants. SMEDO entrepreneurship trainings consist of phases for preparing a traditional business plan.

In the recent years Alexander Osterwalder's Business Model Canvas (BMC) reached a great popularity in the world. Business Model Generation (2010) book was translated into 30 languages and became a global bestseller. In Turkey, teaching BMC is preferred especially in private universities prominent with entrepreneurial training programmes, in most developed and industrialized cities. On the other side, traditional business plan preparation is taught in state universities. CSOs like International Entrepreneurship Initiative in Turkey and Women Entrepreneurs Association of Turkey use BMC as project format and criticise traditional business plan for being cumbersome.

Considering this contrariety an experimental application has been decided to carry out. And students were taught both systems within training programmes. The aim of this study is to reveal how the students, that have learned using both models, evaluate these systems. Therefore this study may contribute to new studies producing new hybrid models or modifications in entrepreneurship trainings.

With this aim, two entrepreneurship classes started within Erzurum Technical University Faculty of Economic and Administrative Sciences (FEAS) in the fall and spring semesters of 2014-2015 academic year. Students were

given applied entrepreneurship courses, and have been taught to prepare a business plan at the *Entrepreneurship and SMEs* class in the fall semester, and in the spring semester, they were taught to prepare a business model canvas at the *Entrepreneurship and Economics of Knowledge and Innovation* class. A questionnaire is applied to 79 students that have taken both classes and prepared both a business plan and a business model canvas.

Advantages of the business models may be discussed from various aspects by the academia and practitioners. But for the trainers, how these systems are perceived by the target groups of the entrepreneurship training programmes, is important in terms of success of the training programmes. Trainees from various backgrounds with various educational levels can also be defined as “users”, and their perception may/should improve the tools used in training programmes. Thus this study will not go in deep detail on debate of business models. The aim of this study is not to summarize or make a contribution to the debate on definition of business model, but this study aims to compare the business model canvas and the business plan as tools used in entrepreneurship trainings through the perceptions of business school students, with a user approach.

## 2. Concepts and Definitions

Kuratko (2005) refers to the comprehensive review on entrepreneurship education of Solomon, Duffy and Tarabishy (2002) that, experimental learning is widespread and diverse. And the reported types of learning tools are business plans, student business start-ups, consultation with practicing entrepreneurs, computer simulations, behavioural simulations, interviews with entrepreneurs, environmental scans, live cases, field trips and the use of video and films.

Although business model, business idea and business plan terms are generally used as alternates to each other within entrepreneurship trainings, the distinction should be considered. Business model concept should not be confused with the generic terms of business idea and business plan. Business idea consists of a roughly shaped entrepreneurial intent whereas a business model represents a more formal conceptualization and the proof of the viability of the business idea. Apart from these, the business plan provides a formal description of the prospective business model of a project or venture, and its content is much more broader than describing value proposition. (Mcgrath, 2010; Klang et al., 2014) A business plan consists more detailed issues like cash flow, strategic plans for short, mid and long- term goals, capital structure, managerial costs etc.

There are plenty of academic publications on business models in the recent years. Existence of a debate and intense ambiguity in the literature is observed, which is sometimes referred as a “paradox” (Klang et al., 2014). Frame of the debate and blurriness on definition is summarized below. But most importantly BMC is invisible even in these discussions. BMC is not studied much except applied studies. In order to not to deviate from the purpose of the study and get lost in the debate, detailed discussions will not be mentioned in the study.

Zott et al. have carried out a comprehensive review of the academic literature (1975-2009) on business model concept. Zott et al. state that scholars do not agree on what business model is and business model is often studied without an explicit definition. According to their observation, researchers adopt idiosyncratic definitions that fit the purpose of their studies frequently, thus cumulative progress is hampered thanks to the difficulty of reconciling each of these definitions (Zott et al., 2011).

Zott et al. summarize the business model definitions in the literature as follows:

At a general level, the business model has been referred to as a *statement* (Stewart & Zhao, 2000), a *description* (Applegate, 2000; Weill & Vitale, 2001), a *representation* (Morris, Schindehutte, & Allen, 2005; Shafer, Smith, & Linder, 2005), an *architecture* (Dubosson-Torbay, Osterwalder, & Pigneur, 2002; Timmers, 1998), a *conceptual tool or model* (George & Bock, 2009; Osterwalder, 2004; Osterwalder, Pigneur, & Tucci, 2005), a *structural template* (Amit & Zott, 2001), a *method* (Afuah & Tucci, 2001), a *frame-work* (Afuah, 2004), a *pattern* (Brousseau & Penard, 2006), and a *set* (Seelos & Mair, 2007).

Fritscher and Pigneur (2014) define business model canvas as a visual modelling method that is used to capture the business model of a company. They state that problems had raised due to BMC’s broad adoption. But on the other hand, BMC has visual and simple-to-use structure aligns with design thinking and managing as designing.

Oliveira and Ferreira (2011) reviews *Business Model Generation: A handbook for visionaries, game changers and challengers* as a great assistance to students, researchers and practitioners looking for powerful, simple, tested tools leading to superior business model implementations.

In their recent book *Value Proposition Design* (2014) Osterwalder, Pigneur, Bernarda and Smith do not tie BMC and any of its assertions or practices to the academic literature (Radziwill, 2015). The same issue can be observed in *Business Model Generation Visionaries, Game Changers, and Challengers* (2010) book either. This disconnectedness makes it blur where BMC stands in the literature.

Abraham (2013) states that every viable organization has a business model and the model changes, as the organization grows and responds to changes in its environment. Tools like BMC can promote to understand the current business model and help to decide whether it needs to be tweaked or replaced. And he concludes a contemporary discussion that business model innovation will not replace strategic analysis. A business model will not help an organization to develop competitive advantage or become a strong competitor. An organization needs both a business model and a strategic analysis.

Euchner and Ganguly (2014) suggest that strong business models cannot be generated by brain storming the elements of a business model using a tool like the Osterwalder's BMC. Using BMC may be useful for representing a business model but it does not represent the three characteristics of a good business model, as it does not reveal coherence, competitive position and economic leverage points.

### 3. Studies Using BMC Tool

Studies using BMC tool can be evaluated in two major groups: studies modifying BMC tool and producing new models, and studies evaluating BMC practice from various aspects.

Leschke (2013a) introduces the *business model map* extending Osterwalder's canvas model by adding some new blocks and dividing some components into more distinct parts. Leschke argues that it does not make sense to invest time and effort to develop a business plan for every option. He aims to generate a new tool, which will be sufficient to compare and contrast competing opportunities and help to determine which alternative is best to carry forward to the business planning stage.

Leschke (2013b) uses the tool *business model mapping* in his experimental study. In an introductory entrepreneurship course the study hypothesized that using higher-level business modelling techniques is an effective and appropriate alternative to the common, but more advanced, business planning technique. Leschke states that the great majority of the student feedbacks on business model mapping concept and tool were strongly positive with a few lukewarm endorsements, and there were no negative comments.

Slavik and Bednar (2014) have carried out a qualitative analysis to identify innovation business models of enterprises in Slovakia territory by using Osterwalder's BMC. Hoveskog et al. (2015) describe an ideation experience workshop, conducted in an undergraduate business course, using BMC tool.

Fritscher and Pigneur (2014) propose a set of design principles for business model evaluation and demonstrate a tool to contribute to computer-assisted business model design. Study focuses on BMC and consists of observations of students and a perceived usefulness survey.

Bertels et al. (2015) deployed the BMC to identify the factors that determine success or failure in outside-the-core-projects and to examine the changes the projects required to individual business model components-and how firms identified and responded to those requirements. They criticise the BMC tool as it did not fully capture several areas important for their analysis like unit margins, velocity and volume, business-to-business projects etc. But the most important result of the study is that false assumptions in one business model element often affect other elements, creating a waterfall effect that cascades across the entire business model.

Dudin et al. (2015) express positive assessment of BMC use, within their study searching for fundamentals of effective budgets on the basis of BMC. According to the study, using BMC enables the company to increase the level of revenue and profit as well as ensuring the proper level of orientation on the client to maintain competitiveness and sustainability of the business. Dudin et al. state that it is optimal to use the BMC tools for effective budgeting because of the constant changes in the internal and external environment. The BMC helps to detect promptly the weak points in the intensity and rate of outgoing and incoming cash flows.

Jackson et al. (2015) use BMC tool for teaching entrepreneurial finance. They indicate that using BMC meets the six characteristics as defined by Neck and Greene, as it provides a set of transferable skills and techniques for new venture creation; students walk away with a toolkit applicable for all startups; is founded on and reinforces the creative problem solving process; relies on iterations for optimal results; encourages experimentation; and is practiced again and again.

### 4. Method

Two entrepreneurship classes started within Erzurum Technical University Faculty of Economic and Administrative Sciences (FEAS) in the fall and spring semesters of 2014-2015 academic year. Students were given applied entrepreneurship courses, and have been taught to prepare a business plan at the Entrepreneurship and SMEs class in the fall semester, and in the spring semester, they were taught to prepare a business model



Sample consists of 75.9% female and 24.1% male students. Departmental distribution of the students: 54.4% business administration, 45.6% economics. Mean of birth year of the students is 1993.

Table 2. Tendency to start-up a business

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total responses	Mean	SD
After graduation I'd like start my own business	20.3%	7.6%	26.6%	25.3%	20.3%	79	3.18	1.394

In total 45.6% of the students have indicated that they are willing to start-up a business after graduation.

Table 3. Comparison of BMC and business plan use

<i>Compared to business model canvas, I think...</i>	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total responses	Mean	SD
business plan is easier to prepare.	25.3%	36.7%	10.1%	15.2%	12.7%	79	2.53	1.357
business plan is more clear.	8.9%	12.7%	13.9%	41.8%	22.8%	79	3.57	1.227
business plan is more useful.	6.3%	12.7%	20.3%	48.1%	12.7%	79	3.48	1.073
business plan reveals the phases of starting up a business more realistic.	2.5%	6.3%	13.9%	54.4%	22.8%	79	3.89	.920
business plan is superior in financial planning.	1.3%	5.1%	19.0%	57.0%	17.7%	79	3.85	.818
business plan is superior in marketing planning.	1.3%	12.7%	19.0%	49.4%	17.7%	79	3.70	.952
business plan is superior in costs.	-	10.1%	19.0%	48.1%	22.8%	79	3.84	.898
business plan is superior in describing customer needs and value proposition.	1.3%	21.5%	16.5%	50.6%	10.1%	79	3.47	.985
business plan is superior in production planning and supply chain.	1.3%	13.9%	16.5%	54.4%	13.9%	79	3.66	.932
I much more liked preparing the business plan.	12.7%	29.1%	15.2%	29.1%	13.9%	79	3.03	1.291

Students were asked 10 questions comparing business plan and business model canvas from various aspects. Frequency table of the research questions is presented below. 62% of the students have stated that they find it more difficult to prepare a business plan. On the other hand despite its hardship to prepare, students have stated business model's superiority to BMC on several issues. According to students' statements, compared to BMC, business plan is more clear (64.6%), more useful (60.8%), more realistic in revealing the phases of start-up (77.2%), superior in financial planning (74.7%), superior in marketing planning (67.1%), superior in costs (70.9%), superior in describing customer needs and value proposition (60.7%), superior in production planning

and supply chain (68.3%). After providing these statements students were asked which system they liked preparing the most. Answers to this question could not be decisively evaluated. Percentage of positive, negative and neutral statements are very similar.

Independent samples t-test was conducted to compare business plan and BMC use perceptions scoring for gender. There was not a significant difference in the scores for female male students.

## 6. Conclusion

Business model canvas and business plan are prevalent and widespread tools used in entrepreneurship trainings. The aim of this study is to reveal how the students, that have learned using both tools, evaluate these systems. For the trainers, how these systems are perceived by the target groups of the entrepreneurship training programmes, is important in terms of success of the training programmes. Trainees from various backgrounds with various educational levels can also be defined as “users”, and their perception may/should improve the tools used in training programmes. Therefore this study may contribute to new studies producing new hybrid models or modifications in entrepreneurship trainings.

For trainees without a business school background, entrepreneurship trainings are usually positioned as introductory courses and BMC or its modified versions can be easily used. Business plan writing might be onerous and require a basic financial, marketing, managerial etc. knowledge. Target group of this study is 3rd grade FEAS students and who are eligible to learn both systems with an appropriate academic background.

Although BMC use is especially preferred in educational institutions that have close relations with the business world, and is taught in leading universities in many countries, the number of studies issuing this model is very low compared to its popularity. Existing applied studies mostly present new modifications of the model and are close to management literature. On the other hand in the most cited publications BMC is not mentioned at all or referred as a visualization/presentation format. This can be explained by newness of the model. Nevertheless, though popular and widespread use of the model, BMC’s getting lost in business model debate is not a quite understandable fact.

Investors, especially angel investors in Turkey prefer BMC as it explains the value proposition and feasibility of the business through a short summarized logic. It’s a great importance for the students to learn this model. On the other hand, despite taking several courses on business management, business plan presents a detailed and holistic system for the students by enabling them to go in deep on finding a business idea, planning and managing a business. Findings of the study indicate that students perceive business plan as a superior preparation process.

### 6.1 Observations of the Author

Visual properties of BMC and illustrated extraordinary books on how to use the tool, sometimes cause BMC to be perceived simple. But in fact BMC presents a tool for the user enabling detail as much as the user wants. As the advanced users know how to design the revenue and cost blocks to convince the investor, they ornament the canvas that way. Experienced entrepreneurs are aware of the importance of issues like when the break-even point realizes, they surely indicate this prediction in the canvas. So what canvas captures or not, mostly depends on the knowledge and experience of the person who prepares it. At this point students were observed to experience difficulty. While business plan requires filling several pages of formatted questions and tables, BMC presents students an empty format to be filled with their skills and abilities. Although the system was explained in the classroom, great majority of the students couldn’t prepare the canvas by themselves and expressed that they wouldn’t know how to. When BMC preparation is told privately to the group through their business idea, group members could understand it. Another fact inducing this issue is that traditional business language used in educational system and the BMC language is different, BMC uses an up-to-date business language. Students could hardly adopt the knowledge they gained through their university life, to both systems.

With a similar approach BMC use by the trainers can be evaluated either. BMC presents a tool for the trainer enabling detail as much as the trainer wants. At this point what canvas captures or not, mostly depends on the trainer’s knowledge, experience and skills and abilities. With a managerial academic background the trainer might teach the tool with a special focus on planning, or with a financial academic background the trainer may teach the tool including detailed financial tables. BMC tool used in the trainings will be shaped according to the vision it is taught.

Students have found it hard to prepare long and detailed financial tables of business plan, expressed extreme boredom and mostly failed. Nevertheless students evaluated business plan as a superior tool.

Students were asked questions comparing business plan and business model canvas from various aspects. 62% of the students have stated that they find it more difficult to prepare a business plan. On the other hand despite its

hardship to prepare, students have stated business model's superiority to BMC on several issues. According to students' statements, compared to BMC, business plan is more clear (64.6%), more useful (60.8%), more realistic in revealing the phases of start-up (77.2%), superior in financial planning (74.7%), superior in marketing planning (67.1%), superior in costs (70.9%), superior in describing customer needs and value proposition (60.7%), superior in production planning and supply chain (68.3%). After all these statements students were asked which system they liked preparing the most. Answers to this question could not be decisively evaluated. Percentage of positive, negative and neutral statements are very similar.

Independent samples t-test was conducted to compare business plan and BMC use perceptions scoring for gender. There was not a significant difference in the scores for female and male students.

The trainer has preferred to teach both systems to her students because of various reasons. Business plan is the file format SMEDO requests for new entrepreneur grant award applications in Turkey. Therefore SMEDO certificate is an important motivation source for the students. On the other hand BMC tool is taught in best universities in the world and in Turkey. Angel investors in Turkey prefer seeing presentations on BMC. Furthermore target customer group and value proposition topics are more effectively taught through BMC.

Trainings were carried out in a state university located in a non-industrialized region with low GDP. Great majority of the students are local therefore not raised up in an industrialized city culture. In terms of supporting students' competitiveness, catching-up with new trends and especially proficiency, teaching a system used in private universities in the most developed and industrialized cities of Turkey is concerned as well.

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