




“Using the business model canvas to improve audit processes”

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USING THE BUSINESS MODEL CANVAS TO IMPROVE AUDIT PROCESSES

Abstract

The study aims to determine whether auditors can use a business model canvas in their operations and how it increases the auditing value. This paper uses qualitative methods, including in-depth interviews with 37 internal auditors from Poland. It shows that the current channel of communicating audit assumptions with requesters is insufficient to facilitate audit processes. The auditors' communication with their clients is limited by being in their knowledge area. The study presents a modified business model canvas, which fits auditors' needs. The proposed changes rely on a different sequence of the traditional Osterwalder's Canvas building blocks. Besides, modified Osterwalder's model includes Mission, Impact, and Accountability blocks. These blocks, added to the model, make aware audit parties that the auditors are mission-focused and impact-driven on audited organizations and their environment. Adopting the business model canvas framework in the audit process showed potential, as auditors can better explain audit goals and limitations. The study fits the literature related to firms because it emphasizes that creating the process understandability for external parties is a crucial performance point.

Keywords

model, business model canvas, auditing, governance,
business administration, business economics

JEL Classification

M42, M49

INTRODUCTION

In the case of auditing, scholars perceive this process through the prism of legal requirements or, more broadly, through the administrative discourse (Mosher, 1979; Pollitt et al., 2002). Meanwhile, auditing should be treated as a process aiming to provide the product (audit report) delivered in the appropriate place and time and expected manner by its purchaser. Moreover, it requires proper relations with stakeholders, which are the part of intellectual capital (Edvinsson, 1997). Therefore, this process must have stages that enable an analysis of the audit request, preparation of audit methodology, and commitment to and with the requestor through the requestor's familiarization planned audit, including its potential constraints.

The typical audit deficiency is wrong planning of the audit process. As a result, audit plans are not risk-adjusted. Inappropriate planning leads to auditors' workloads and limits audit quality (O'Keefe et al., 1994; Hackenbrack & Knechel, 1997; Sweeney & Summers, 2002; Persellin et al., 2019). Therefore, there is a need to determine how to use solutions verified and well-known in business in the case of the audit process and avoid problems with wrong audit planning, including misunderstanding of audit requestors' needs.

This study uses Paul et al. (2007) findings on "communities of practices," where investors may understand the investment opportunity and firms' limitations. One may understand the audit plan as the primary

information vehicle between auditors and audit requesters and use an approach based on studies on entrepreneurship in this respect (Karlsson & Honig, 2009; Sort & Nielsen, 2018). One can perceive a business model as a solution for facilitating communication (Bukh, 2003; Sort & Nielsen, 2018). Similar to Carlson and Wilmot (2006), one may point out that a business model is an arena of shared language and value creation processes in an organization conducting the audit, which enables auditors to focus on their customers and enhance the value of audit realized.

While the existing literature shows firms' use of a business model canvas (Osterwalder & Pigneur, 2010), the question that has not been addressed is whether auditors can use the business model canvas in their audit practices.

1. LITERATURE REVIEW

Following arguments formulated by Magretta (2002), Zott et al. (2011), and Sort and Nielsen (2018), one can summarize that business models emphasize a holistic approach regarding how organizations (including audit organizations) do their operations and achieve planned goals and tasks. Understanding the organization's activity and value creation is vital in conceptualizing a business model (Zott et al., 2011; Sort & Nielsen, 2018). One can seek a theoretical foundation of business models in the transaction cost economics and capital budgeting literature. Examples include Schumpeter's theory of innovation, Porter's value chain framework, and the resource-based approach of a firm (Antle & Eppen, 1985; Harris & Raviv, 1996; Magretta, 2002; Osterwalder et al., 2005), and managerial cognition.

One can also agree with Zott and Amit (2010) that a business model transcends the organization and spans its environment. A business model visualizes the organizational and financial structures necessary for business operations (Magretta, 2002; Baden-Fuller & Morgan, 2010). Osterwalder et al. (2005) and Osterwalder and Pigneur (2010) argue that a business model is a concept showing a set of items, terms, and relationships to express a specific firm's business logic. They underline that a business model shows communication channels with customers. One may argue that a business model presents how a business works, what kind of business value is provided, and how this is accountable and presented to the organization's stakeholders. One thinks that a business model reduces uncertainty by visualizing business assumptions and their potential effects (Dobrowolski & Sułkowski,

2021). Among business models, one concept became popular. It is a business model canvas (Osterwalder & Pigneur, 2010).

A business plan has long been perceived as a vital vehicle between parties involved in an activity (Karlsson & Honig, 2009). Material information seems crucial for decision-makers (Mason & Stark, 2004). However, other scholars have argued that such a type of information is only a tiny part of the information. There is a need to consider intangible elements, such as trust, reputation (Sørheim, 2003), and channels of communication (Cornelissen et al., 2012). In addition, the importance of mutual understanding between parties has been pointed out (Sørheim, 2003; Hsu et al., 2014). This view complies with Mason and Harrison (2004), arguing that facilitation can eliminate communication process constraints.

From the interesting audit's point of view, an audit team must first make sense of its limitations and strengths and must be able to present this understanding to others, like in the case of entrepreneurs, what Gartner et al. (1992) showed. Following Cornelissen (2005) and Sort and Nielsen (2018), one can notice that such a situation creates parallels between knowledge domains. It means those who realize an audit task are not only faced with the necessity of understanding one's work. A person who realizes the tasks needs to strengthen communication skills to formulate information so that it is understandable to others and there are no differences in interpretation. Therefore, auditing standards, for example, Government Auditing Standards or Internal Auditing Standards, point out the necessity of ensuring that audit documents are concise, precise, and understandable to their readers (IIA, 2016; GAO, 2018).

Because little is known about the communication process between auditors and requestors, there is a need to follow the studies on entrepreneurs and their efforts in making the idea or business project more understandable to other parties (Lounsbury & Glynn, 2001). Like in the entrepreneur's case, an auditor can have communication problems as an auditor addresses various stakeholders, such as decision-makers, who represent different scales of understanding the issue plan to be audited. Communication will often be the most difficult when an auditor addresses stakeholders with little knowledge of an auditor's work, including audit methodology. Such a situation is recognized in the case of those who realize investment (Cornelissen et al., 2012). Hence, a communication frame must be adjusted to the addressed stakeholder (O'Neil & Ucbasaran, 2016; Sort & Nielsen, 2018).

Many researchers present the role of auditing in organizations (Deis Jr. & Giroux, 1992; Francis, 2004; Jackson et al., 2008; Knechel et al., 2013; Teodorescu, 2015; Jeppesen, 2019; Corderly & Hay, 2019; Johnsen et al., 2019; Dobrowolski, 2020; Dobrowolski & Sułkowski, 2020; Sułkowski & Dobrowolski, 2021). The primary role of each audit team is to review and evaluate the realization of different policies, strategies, and processes. In addition, auditors may identify legal loopholes and advise on eliminating them from the audited system.

Therefore, an effective audit can increase the trust and engagement of potential investors due to reputational risk reduction (Cayón & Gutierrez, 2021), improvement of the internal customers' relationship (Samoliuk et al., 2022) and increase of overall quality of the corporate governance (Akimova et al., 2020; Jerzemowska & Koyama, 2020).

Among auditors' functions, an informative function plays a critical role. Through audits, auditors inform the decision-makers about the problems and achievements of audited organizations. An information function reveals the advisability of an audit (Bringselius, 2014; Dobrowolski, 2017; Sułkowski & Dobrowolski, 2021). In addition, an informative function enables realizations of other audit functions, such as preventive and advisory, manifested by audit conclusions and recommendations.

Auditors are not authorized to order the audited organizations to implement audit recommendations. It is due to the adopted legal paradigm binding public and private organizations. Managers are responsible for the activities of their organizations and have the right to make decisions. Auditors can only point to solutions that, in their opinion, improve the activities of the audited organizations. However, they have the right to obtain information from the audited organizations on the manner of implementation of audit recommendations or the reasons for refusing to implement them. The overall audit opinion must be supported by sufficient, reliable, relevant, and valuable information. Auditors must be independent and objective in performing their work. It means that they must perform an audit in an unbiased manner. It does not mean that auditors cannot discuss with audit requestors the scope of the audit. Contrary, such a discussion enables achieving audit objectivity and, in other words, planning and executing audits in an unbiased manner with formulating audit findings only based on audit evidence (Dobrowolski, 2017; IIA, 2022b).

Audit deficiencies affect engaged capital waste, including human and financials. The improper realization of an audit process, considered a public investment, erodes public trust in the state and its institutions. The audit deficiencies are recognized in the literature (Patterson, 1986; Bonner et al., 1998; Beasley et al., 2001; Kożuch & Dobrowolski, 2014; Dobrowolski, 2020; Dobrowolski & Sułkowski, 2020; Rajgopal et al., 2021; Prasad & Webster, 2022). Among the top audit deficiencies, one may identify a most common problem – the lack of sufficient and reliable evidence to support audit findings and implement the audit plan. For example, Beasley et al. (2001) showed that many cases involved inadequate asset valuation or ownership evidence. It limits due professional care required by auditing standards (IIA, 2016). There are also examples of weak professional skepticism. Often, auditors only base on management responses.

Meanwhile, auditors should verify them by analyzing other gathered evidence. Auditor's failures also include examining irrelevant supporting documents. Rajgopal et al. (2021) point out an example where auditors analyzed a draft instead of a final sales contract or failed to perform steps listed in

the audit program. Auditors may also reduce audit materiality to limit the sample size of analyzed documents (Beasley et al., 2001). In addition, audit recommendations are too general or impossible to implement, making an audit not valid for stakeholders (Kozuch & Dobrowolski, 2014). Auditor's deficiencies result from incorrect preparation of the audit program and the auditors' and audit requestor's failure to understand the scope and audit limitations (Dobrowolski, 2017).

Based on previous research, one may generalize that an audit process aiming to evaluate audited organizations through multifaceted audit criteria requires cooperation among auditors and between auditors and audit requestors. However, communication between these two parties may be difficult when an auditor cooperates with stakeholders with little knowledge of the auditor's work, including audit methodology. A business model shows communication channels with customers and presents how an organization works, what kind of value is provided, and how this is accountable and presented to the organization's stakeholders. Therefore, one may conclude that auditors should use the business model because it reduces uncertainty by visualizing operational assumptions and their potential effects. Meanwhile, little is known about whether the auditors use the business model.

The study aims to determine whether auditors can use a business model canvas in their operations and how it increases the auditing value. It leads to the following research question: Can the Business Model Canvas help frame audit negotiations between requestors and auditors throughout the audit process?

2. METHODS

The literature review using a database such as Google Scholar, Scopus, and Web of Science (Snyder, 2019) enabled one to find the research gap and formulate one research question. The paradigm one decided to use is interpretivism or symbolic-interactionism (Sułkowski, 2012; Burrell & Morgan, 2017) because of the research phenomenon's open nature and few studies. It requires a reflective approach with respondents simultaneously being key informants. The second is the confidentiality of the researched matter. Audit plans and working papers

are often unavailable to the public. It eliminates the possibility of analyzing these documents.

The paper aimed to gather more in-depth knowledge on internal auditors' opinions about the business model canvas as a solution facilitating the audit process. Therefore, the study uses convenience sampling (Saunders et al., 2012) and in-depth interviews with 37 Polish internal auditors (2016–2019). The sample is purposive and heterogenic but gives insight into crucial informants' perspectives (Faifua, 2014). Of the 37 auditors interviewed, 32 worked in public administration and five in business organizations. They were internal auditors. The transcripts of the interviews with respondents were analyzed using the Nvivo14 software. In order to ensure the accuracy of statements, one has to keep the anonymity of the respondents. From the perspective of this research goal, it was not important what the organization's size was from which the auditors came.

One assumed that auditors' answers might be subjective but allow one to understand the processes in which they participate. Such subjectivism is permissible from the perspective of a qualitative approach (Clark, 2010; Van Manen, 2016). The study's rigor is based on open questions and a comparison of the answer of respondents. One used data and methods triangulation to get a broader context of the studied issues (Campbell & Fiske, 1959; Greene et al., 1989).

3. RESULTS

Based on the answers the interviewed auditors gave and the analysis of internal and external audit standards (IIA, 2022b; INTOSAI, 2019c, 2020a, 2020b), one has decided that the audit procedure is as follows. First, the auditors analyze whether the scope of the planned audit is consistent with their audit powers after receiving an audit request from an external entity (decision-maker – head of the audited organization, parliament, or other commissioning parties). Next, the auditors determine the audit objectives and audit questions and how to obtain answers to those questions (the types of audit evidence to be obtained). Auditors include the collected information in the audit program, and this docu-

ment may be unavailable for the audited organizations and audit requestors. After starting the audit, auditors collect audit evidence and, on its basis, prepare a preliminary audit report containing the audit findings, conclusions, and recommendations. The audit report is submitted to the audited organization, which may submit substantiated objections to the audit findings, conclusions, and recommendations. Then, after their examination, the position of the audited organization and auditor is presented in the audit report, which, if permitted by law, is available to the public. The above description of the audit procedure shows that after submitting the audit application, the requestor cannot consult the auditor on the scope of the tests to be performed.

Meanwhile, the explanation by the auditor to the requestor, without violating the principle of independence, of the general direction of the planned audit activities is conducive to a better understanding of the auditors' capabilities and limitations of audit requestors. The audit involves financial and human resources both in the audit and the audited organizations. The audit requestor can be familiarized with audit assumptions in the American practice of public audit (Dobrowolski, 2004). Interviewed auditors also found that the problem from their perspective is the complexity of the audit program and audit procedures. They said that audit requestors and audited organizations rarely know and understand these procedures. One also underlined that terms used by auditors are sometimes not fully understood by the audited organizations and audit requestors.

The surveyed auditors were asked whether they had ever used a business model canvas in their audit practice. None of them confirmed that they used this model. Next, after presenting the assumptions of this model to the interviewed auditors, one asked them whether the business model canvas fits the auditor's needs and can improve contacts with audit requestors and audit planning and ensure a better understanding of audit assumptions by the audit team. 32 out of 37 interviewed auditors stated that the business model canvas fits the auditor's needs. One pointed out the following benefits of using a business model canvas by auditors: 1) clients, resources, and tools are visible in one place, and it is easier to

understand the dependence between different audit factors; 2) a business model canvas enables one to understand how key activities fit value propositions and customer relationships. Two auditors did not see any benefits in a business model canvas.

Nineteen respondents pointed out that a business model canvas can be a helpful tool in planning tasks. For example, it was stated that a business model canvas enables auditors to see how the resources are turned into effects. In addition, a business model canvas simplifies the audit plan and makes it readable.

Twenty-two auditors noticed that a business model canvas could be a model to improve relations with the audit client. They said the audit requestors may understand the auditors' assumptions. A business model canvas allows one to combine information about the auditor's legal rights with data about the scope of planned audit tasks. Auditors can correct the audit assumptions, for example, better fit the cost of an audit with requestors' requirements.

There are a few primary assumptions in selecting the Business Model Canvas for auditors. They realize service aims to determine audit findings based on audit evidence. They also formulate audit conclusions and recommendations to improve audited activity. Auditors cannot replace managers in fulfilling their duties, so the realization of audit recommendations is not mandatory for auditees. However, audited organizations must inform auditors whether and how they improved their activity and used audit recommendations. Although internal auditors belong to organizations they audit, they must be independent and objective in fulfilling audit services (IIA, 2022a). The requirement of independence, impartiality, and objectivity also exists in the case of external auditors, for example, those from supreme audit institutions (INTOSAI, 2019b). In the case of public auditors, they receive salaries according to legal requirements. Only private auditor firms implement tasks in a way to achieve profit. Auditors show the clients' benefits of their audit work measured by financial savings from eliminating auditees' strategic and operational gaps.

Based on the overview of auditors' work presented above, it is clear that there is a difference between auditors and firms. However, there are also

shared values and activities. Based on the analysis, one may modify the traditional Business Model Canvas in the following way. First, one may add the Mission block, which clearly states the purpose of the auditors and is linked with their vision. It fits both internal auditors grouped in the organizational unit and external public auditors from audit organizations, such as the supreme audit institutions. Next, one needs to add the Impact block to show the benefits of auditors' work to their customers. Finally, the auditor cannot behave opportunistically. The auditor's work relates to the sphere of public trust (INTOSAI, 2019b, 2019c; IIA, 2016).

Therefore, the Business Model Canvas should consider one more value: Auditor's Accountability. The mere indication of this area in the canvas constitutes a frame and can shape the audit requester-auditor-client relationship. One can understand the term "auditor accountability" as an obligation or willingness to accept responsibility or to account for one's actions in planning, carrying out audits, and following up to improve the auditor's and auditee's activity in a sustainable manner. This definition transposes the term "energy accountability" formulated by Sułkowski and Dobrowolski (2021). It differs from the traditional Osterwalder's Canvas, which has no such blocks. Auditors co-participate in achieving goals determined in the decision-maker policy, and it requires the involvement of many stakeholders. Some of them determine the rules for organizations. Therefore, there is a need to modify the concept of Osterwalder and Pigneur (2010) and separate the co-creators of policy from its beneficiaries similar to Qastharin (2015). It enables auditors to plan the tasks so that they need to consider the interest of both these parties. The adaptation of the Business Model Canvas for auditors is presented in the figure, formulated by Sułkowski and Dobrowolski (2021).

In a block of Customer Segments, an auditor should answer the following questions: To whom is the audit service created? The answer is the following: for the audit requester and other stakeholders. The analysis in this area allows determining how to develop the final product – an audit report, valid for the specified stakeholders. This part of a Business Model Canvas identifies the funda-

mental groups of clients the auditors want to reach. Customer segmentation allows one to plan how to meet their needs, taking into account specific customer characteristics.

In a block of Value Propositions, an auditor should answer the question: What customer problems do auditors want to solve? What is the most important for the recipients of the audit service? What is the most significant value for them? In the case of public auditors, in-depth analysis in this area allows for determining whether the offered audit service would induce the client to choose it if it were optional. Auditors (private and public) should compare their proposed values with value propositions created by their competitors. One of such values is specific benefits, including those related to creating mutual trust. Another value is the quality of the service. Another example of value desired by consumers is novelty. Some products or services meet the needs that customers did not even know existed because there was no suitable offer on the market so far. Customers may also benefit from advisory services accompanying the audit, including identifying areas of increased risk in the organization's future operations and indicating the directions of its mitigation.

In a block of Revenue Streams, auditors should seek answers to the following questions: What are auditors' customers paying now, and what value would they be willing to pay? What is the structure of revenue streams? These questions are evident in business. In the case of public auditors, the above questions are also relevant. Public decision-makers fund the auditors' budget. Therefore, the more auditor's work is indispensable from the stakeholder perspective, the greater the chance of budget financing as intended by auditors.

In a block of Key Resources, auditors should determine what resources are required for the value proposition made by the auditors? What resources are needed for the proper functioning of distribution channels? What resources do customer relationships require? In this block, auditors demonstrate all the resources needed to conduct an audit, reach the customer, and generate revenue. Crucial resources include physical, financial, intellectual, and human resources.

In a block of Key Activities, auditors must answer questions: What actions do they need to take to achieve the audit objectives? What do they have to

do to establish and maintain customer relationships? What activities do distribution channels require? What are the most critical activities for the value proposition? Auditors determine what activities are needed to accomplish the audit's objectives and tasks and their development. Key activities vary depending on the audit profile. For auditors, the critical activity will be to resolve the audit applicant's problems contained in the audit application.

In a block of Key Partners, auditors answer the questions: Who is the key supplier? Who is the most crucial partner in terms of achieving goals and tasks? What products and services do partners provide? Auditors specify all entities on which their activities depend. Auditors should identify the benefits of collaborating with other organizations. Thanks to the cooperation, they can gain access to specific resources, minimize the risk of running an audit or reduce the time of performing audit tasks.

In a block of Cost Structure, auditors may determine what activities require the most significant financial outlays? What generates the highest costs? Which key resources cost the most? To answer these questions, auditors first analyze resources, methods of operation, and scope of cooperation with other entities.

4. DISCUSSION

This study is in line with Komisar and Lineback (2001) and Qastharin (2015), who showed limi-

tations of the current Business Model Canvas in the case of non-profit organizations. Although auditors from private audit firms do not represent not non-profit entities, some values are similar. They need to ensure accountability and trust. Therefore, there is a need to change the traditional business model canvas. The proposed changes cause a different sequence of the traditional Osterwalder's Canvas building blocks. Instead of starting from Customer Segments, one proposes starting from Mission, which determines auditors' approach and plays the role of their signpost. Auditors should be mission-focused and impact-driven on audited organizations and their environment. Next, the proposed model, like in the case of Osterwalder's model, includes the Customer Segments and Cost Structure and ends with Impact and Accountability.

The study shows the implications of using the business model canvas as a frame of audit constraints. One may argue that auditors would benefit from an improved understanding of audit assumptions by decision-makers. Therefore, this study fits the literature related to firms (Lounsbury & Glynn, 2001; Sohl, 2012; Sort & Nielsen, 2018) because it emphasizes that creating one's understandability for external parties is crucial for business parties. The understandability of audit opportunities combines elements of intangibility and materiality, like in the entrepreneurs' case (Sørheim, 2003; Mason & Stark, 2004; Hsu et al., 2014; Harrison et al., 2015).

CONCLUSION

This study aimed to determine whether auditors can use a business model canvas in their audit practices. This study confirmed it. The interviewed auditors perceive the proposed solution as a chance to facilitate the audit process. Most of them pointed out the benefits of the business model canvas caused by better fitting the cost of an audit with requestors' requirements and showing how the resources are turned into effects in one place.

The study enabled one to resolve the research question. It was shown that the Business Model Canvas could help frame audit negotiations between requestors and auditors throughout the audit process. It is possible by improving communication between auditors and audit requestors. This study revealed that although interviewed auditors did not use the business model canvas before this study, they quickly perceived its benefits because it makes planning documents more understandable for auditors and audit requestors.

Applying the proposed modification of the business model canvas as a platform for discussion with audit requestors may solve many problems identified throughout the literature on audit processes. Therefore,

the study enables the development of audit theory's important implications for the practitioners looking for possibilities for organizational improvements.

LIMITATIONS AND FUTURE RESEARCH

As with any study, this paper has some potential limitations. The interviewed auditors did not use a business model canvas in their audit work. Therefore, although the study enabled the formulation of the novel business model canvas for auditors and it constitutes a novelty, these studies should be treated as preliminary. In subsequent studies, the benefits of using the business model canvas by auditors should be empirically verified. One proposes comparing the group of auditors and audit requestors using this tool with those not using it.

AUTHOR CONTRIBUTIONS

Conceptualization: Zbysław Dobrowolski, Łukasz Sułkowski.

Methodology: Zbysław Dobrowolski, Łukasz Sułkowski.

Project administration: Zbysław Dobrowolski.

Funding Acquisition: Łukasz Sułkowski.

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Supervision: Zbysław Dobrowolski, Łukasz Sułkowski, Mirela Panait.

Writing – original draft: Zbysław Dobrowolski.

Writing – review & editing: Zbysław Dobrowolski, Łukasz Sułkowski, Mirela Panait.

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