Chapter 2
An Approach to Designing IoT-Based Business Models

Iva Vojinović
University of Belgrade, Serbia

Ivan Jezdović
University of Belgrade, Serbia

Dušan Barać
University of Belgrade, Serbia

Milica Labus
University of Belgrade, Serbia

Filip Jovanović
Project Management College, Serbia

ABSTRACT

This chapter will foster the understanding of the structure of business model elements in Internet of things field. Business model provides an efficient way to analyze, understand and manage strategically oriented goals for one or more stakeholders in order to create some value for end-users, but in the Internet of things there is not clear path for its development. An approach that will be used is the generally accepted principle of forming business model, Canvas template, which is a strategic template for understanding the relation between key partners, key activities, customers and clients, key resources, value proposition for customers in the form of products or services, relationships with customers, sales and distribution channels, cost structure, income flow. Presented is an integrated model with main aspects that should be covered when it comes to the Internet of things business model development, combining Canvas template, inside organizational structure and ecosystem restrictions.

INTRODUCTION

In the media and literature is constantly cited forecasts that by 2020 billion devices will be connected to the Internet (Gartner, 2015). This assumption makes the market of smart devices increasingly competitive. Companies and start-ups are competing to become a leader in the smart tech sector. This led to the new go to market strategies.

The development of technology led to changes in business processes, where business models have to adapt to the new agile way of doing business. The biggest changes are based on the introduction of the Internet into all business processes, thus leading to mandatory online communication, data storage on the cloud, as well as multiple networking business systems due to the need to develop products and services based on the Internet of things. Combining different technologies leads to their overflow into one another, thus losing a clear path for go to market strategy.

In traditional industries, with products that are not connected to the Internet, the process of placing products on the market is the same whether it is a piece of clothing, food or any other product, setting it on the shelf in a store is enough to reach consumers. The whole process of sale involved the single activity and one-time interaction with customers. Product replacement happens when the product breaks down and loses its functionality. The traditional approach to modeling business systems and creating the business models does not apply to the Internet of things business models.

Internet of things, is a blend of hardware and software connected to the cloud, which significantly changes the user experience services that the product provides. Business models in Internet of things are based on keeping users on the same product with updating its functionalities. Products that are connected to the Internet, the so-called smart devices, have hardware that is constantly active, easy to update and expandable according to customer needs and market trends, providing many more possibilities for establishing long-term relationships with customers.

High fixed costs make it difficult to enter to the market and to be competitive. This provides a greater chance for more proven players to move to the IoT sector, because they are already supported by the experience and have the thrust of users that can deliver quality product.

This chapter will foster the main aspects of influencing technology on business models, and the authors aimed to analyze business models in Internet of things. Therefore, the chapter will start with an introduction of business models and business models in Internet of things, their basis through literature review. Main part of the chapter is preview of the business model Canvas applied in IoT and the overall model with the advices for business model development in IoT. At the end of this chapter authors concluded guidelines for IoT business models.

Related Content

A Flexible and Centralized Approach for Access Control in Heterogeneous IoT Environment
Jean-Noël Colin and Laurent Evrard (2019). *International Journal of Hyperconnectivity and the Internet of Things (pp. 22-42).*
www.igi-global.com/article/a-flexible-and-centralized-approach-for-access-control-in-heterogeneous-iot-environment/234343?camid=4v1a

Disrupting the U.S. National Security Through Financial Cybercrimes
Calvin Nobles (2019). *International Journal of Hyperconnectivity and the Internet of Things (pp. 1-21).*
www.igi-global.com/article/disrupting-the-us-national-security-through-financial-cybercrimes/234342?camid=4v1a

Suitability of IP Telephony in the Public Switched Telephone Network
(PSTN): A Case Study

Hak Ju Kim (2009). *Breakthrough Perspectives in Network and Data Communications
Security, Design and Applications (pp. 28-45).*

www.igi-global.com/chapter/suitability-telephony-public-switched-
telephone/5932?camid=4v1a

Multi-Layer Network Performance and Reliability Analysis

Kostas N. Oikonomou, Rakesh K. Sinha and Robert D. Doverspike (2010).
*Networking and Telecommunications: Concepts, Methodologies, Tools, and
Applications (pp. 167-193).*

www.igi-global.com/chapter/multi-layer-network-performance-
reliability/49739?camid=4v1a