



Original Article

Visualizing “ULOS” Women Handloom Weavers by Business Model Canvas

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Abstract: This study introduces the business model ulos women weavers in Toba Samosir Regency. The collecting data used questionnaires and interviews with 10 participants by purposive sampling. Analyzing data used is a descriptive analysis technique with Business Model Canvas Approach. The result shows that the business model is still in a position that operates on the availability of raw materials, equipment, and labour (Key Resources), what about the purchase and storage of raw materials, production, promotion, marketing, as well as product evaluation and development (Key Activities), how to partner with suppliers of yarn raw materials, with microfinance institutions and banks, the government (Key Partnership), how about investment costs, fixed and variable costs, maintenance costs, credit instalments (Cost Structure). The Value Proposition is products from Sigaol village only (Porsea) that are perceived as a good quality products. The handloom weavers sell not only to collectors or agents but to consumers. It can reach the other market. Choosing another segment will impact value propositions, different distribution channels, a different approach to customer relationships, and earn to the profitability revenue stream.

Keywords: business model; canvas; ulos; women handloom weavers.



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1. Introduction

The existence of a handloom weaver shows concern; several ulos centres in the Purba district, Simalungun regency, no longer exists and the craftsmen turn to farmers. Observations on the central area of ulos with gedogan tools in the village of Sigaol Porsea, Toba Samosir Regency decreased because young people will go abroad and continue their education outside the village and they reluctance of young people to continue weaving. Weaving is considered an additional activity for residents who live in the village. The COVID-19 pandemic has caused the absence of traditional party activities. Because ulos are only used for traditional activities, the demand for ulos will decrease. Besides Ulos functioning in traditional activities, Ulos should also be designed in fashion, such as for clothes, bags, and accessories. Of course, this design process does not leave traditional norms, and the ulos used is ulos, originally woven from the handloom weaver. The data of handloom weavers in Toba Samosir reaches 404 craftsmen. In general, they are women and claim that weaving activities are an ancestral heritage that designs ulos by following the rules of Batak

cultural norms by creating motifs that are in accordance with the customs of the Batak tribe. Ulos woven products are sold to collectors at the ulos centre. If the handloom weaver lacks the capital to buy the yarn, the collectors give the yarn and then they only get wages for the work. This has an impact on the engagement to sell products to collectors.

Women handloom weavers are the same as traditional weaving craftsmen in Indonesia as in Sumba (Noer, 2021). Craftsmen are trying to increase their business by legalizing business activities to get funding from banks (Marques, Leal, Santos, Marques, & Alves, 2017). For this reason, the ability to identify and take advantage of entrepreneurial opportunities is the main point for women in developing their businesses (Al Mamun & Ekpe, 2016). It can be seen from the opportunity women entrepreneurs have better and higher performance than Necessity entrepreneurs (Calderon, Iacovone, & Juarez, 2017). Apart from only selling collector products, craftsmen have the opportunity to sell to consumers directly by selling in the marketplace. Still, on the other hand, craftsmen who have strong family ties (Social bonding) do not want to go international, as well as those who have confidence in their capacity to use resources (Self-efficacy) do not want to enter the international market (goal internalization) (Crittenden, Crittenden, & Ajjan, 2019). Holistic handling is needed starting from raw materials, design, and distribution until the product reaches consumers.

Seeing the limitations of this study, the researcher tried to find the root of the main problem for women craftsmen by mapping the current business model using the Business Model Canvas concept (Osterwalder & Pigneur, 2010). The results of this business model will be the basis for future research. Although the model is very layman and there are many criticisms, the model will be suitable at the beginning of starting a business. If you are experienced, combining BMC and its variations is necessary to have a more holistic understanding of the business (Hong & Fauvel, 2013). Like the Lean Canvas concept helps reach the core ideas developed from BMC, The Creative Business Model Canvas (Carter & Carter, 2020). Considering this model is very popular and frequently used to identify an initial understanding of this business and pay attention to the business process of ulos craftsmen only being limited to weaving. The BMC model is considered suitable for understanding the business model of a women's handloom weaver. The purpose of this research is to map a business model of ulos business that will help the handloom weaver to develop a business that will have a competitive advantage. With the Canvas Business Model approach, at least some of the problems faced by craftsmen will be clearer. The results of this model will help craftsmen formulate further strategies while for stakeholders to participate in developing products. Ulos products will not only become Ethnicity Products used by the Batak Tribe but also become fashion products that can be accepted by national and international consumers and sold in galleries, and marketplaces.

2. Literature Review

2.1. Handloom weavers

The handloom weavers are generally women who also own their own weaving business. Weavers can produce 2 ulos per week. In general, weavers make products according to the wishes of collectors, very rarely do they weave with specially ordered motifs. Weavers mastered two to four motifs which later became their trademark. The process of making woven textiles involves interlinked tasks, requiring several domesticated plants and animals (Buckley, 2017):

1. Cultivating a suitable fibre plant or animal
2. Processing the fibre into yarn
3. Preparing dye vats (traditionally using domesticated or semi-domesticated plants as dye sources)
4. Dyeing the yarn (sometimes including ikat resist decoration)
5. Creating the warp and heddle system, generally on a specialized warping frame, and mounting it on the loom
6. Weaving
7. Assembling, finishing, post-decoration (embroidery, appliqué) in batak called "sirat"

2.2. Concept Business Model Canvas (Business Model Canvas)

Business models have been considered an essential tool in business activities for many years to describe the value creation process. As summarized by (Coombes & Nicholson, 2013) that the development of the use of business models is an exciting thing in business development. The literature used a business model to explain how an organization relates to external stakeholders and engages in economic exchange by creating value for all exchange partners (Zott & Amit, 2007). The importance of business models in the growth of internet-based technology and business by describing the content, structure, and governance of transactions designed to create value through exploiting business opportunities (Amit & Zott, 2012). On the creation and evaluation of e-business model variants: The case of auction (Shin & Park, 2009). A solution business model: Capabilities and management practices for integrated solutions (Storbacka, 2011).

Model Canvas -BMC (Osterwalder & Pigneur, 2010). BMC is simple and intuitive but does not oversimplify the complexities associated with enterprise functions. Specifically, BMC describes it through nine blocks (key partners, key

activities, key resources, value proposition, customer relationships, customer segments, channels, cost structure, and revenue streams). The value proposition is at the core of BMC and it explains the benefits the company creates for the client and why he or she should choose that company over many others (Moggi, Cantele, Vernizzi, & Beretta Zanoni, 2016). BMC is one of the many alternatives that exist in the literature. BMC describes a model representation based on four dimensions: who, what, how, and why (Gassmann, Frankenberger, & Csik, 2014). BMC is used with other business innovation tools, such as Sibbett's context canvas (Van Der Pijl, Lokitz, & Solomon, 2016) and value proposition canvas (Osterwalder, Pigneur, Bernarda, & Smith, 2014). This study of The Creative Business Model Canvas (CBMC) found that the symbolic value of an artist's practice is difficult to capture using CBMC Osterwalder et al. The creative CBMC, as a modified CBMC, captures aspects of the artistic identity such as professional achievements, personal life, and the artist's authenticity (Carter & Carter, 2020). Research Meat villages in fulfilling ecotourism villages using the BMC concept (Simanjuntak & Manalu, 2019) and also on business models canvas on Small Scale Nontimber forest products in Indonesia (Makkarennu, Mahbub, & Ridwan, 2021). The business model canvas also obtains business funding opportunities (Sort & Nielsen, 2018).

3. Materials and Methods

The design of this study is descriptive with qualitative research method. Descriptive research is conducted when researchers already know the factors or variables to measure an object or field but do not yet know the relationship between these factors or variables. researchers only describe the factors or variables studied without testing the relationship of influence between factors or variables (Saragih, Saragih, Purba, & Panjaitan, 2021). In qualitative research the researcher is the key instrument, the sampling of data sources is done purposively and snowball, the data collection technique uses triangulation, the data analysis is inductive or qualitative, and the results of qualitative research emphasize meaning rather than generalization. The business model canvas consists of 9 block elements which can be divided into 2. Block A consists of 5 blocks affecting revenue and customers: customer segments, value propositions, channels, customer relationships, and revenue streams. While Block B consists of 4 blocks that affect the operational processes of the handloom weaver, namely key activities, key resources, key partnerships, and cost structures. Block A and block B in the conceptual model will form a business model with a business model canvas approach.

The data were collected by using participatory action. This study is directly involved in every activity of the craftsmen in Sigaol Village, Toba Samosir Regency. This place was selected intentionally (purposive sampling) with the consideration that, in general, in the village ulos craftsmen and have long been established and become the main livelihood of women. In addition, the craftsmen and business owners are willing to have an open dialogue with researchers to formulate a strategic plan for business development. Descriptive analysis was conducted to identify nine industrial element blocks of the Business Model Canvas approach. Finally, the researcher provides an improvisation of the business model that has been applied for further business improvement. The informants are 10 people who have been weaving since they were teenagers, living permanently and getting married. They are 20 to 60 years old; This shows that the research informants entered the weaving business from a young age and were in the productive age range.

4. Results and Discussion

4.1. Customer Segments

Customer segments describe groups of people or organizations targeted to be served by craftsmen. Because ulos is generally used in traditional events, the market segmentation is only people from certain clans. For example, the Batak Karo tribe will buy ulos Batak Karo only (ethnic consumers). By producing ulos at a high price, this product is sold to the upper-middle class, and if it is purchased from an intermediary, the price is above Rp. 600,000 to Rp. 1,000,000. but because intermediaries manage this product, the craftsmen are only limited to producing it. Add numerical results here. Make sure to describe all tables and add inferences.

4.2. Value Propositions

Value propositions describe the products and services provided by the company to create value for certain customer segments so that it becomes the reason customers choose a company over other companies, the value offered can be quantitative such as (price, speed of service) or qualitative (eg design, customer experience). Judging the theory of the business model canvas, several elements exist in creating customer value, including that Ulos is not a new product (Newness). Still, consumers outside the Batak tribe will say this is a new product. The novelty of this product can only be seen in the modification of the ulos design. In Customization, in this element, consumers get a variety of products with creative Ulos designs. Even some designers have made various clothing, bag, and accessories products. As for price, for this element, the production of ulos originating from Sigaol village is ulos woven with price-

quality for the upper-middle class. Risk Reduction is not shown in the section, except for the collectors who will return it to the craftsmen, or the middlemen will sell to consumers with various price options with different qualities. Because consumers have difficulty dealing with intermediaries, Accessibility is only through intermediaries; this usually does not occur between consumers and craftsmen. The result indicates value proposition is the quality of the hand-woven which in this case is woven with a gedogan (sitting on the floor) tool from Porsea village.

Also, Channels, in this case, the distribution channel, is a way for craftsmen to communicate, deliver, and interact to reach the targeted customer segment. Channels have an important role in raising awareness among customers regarding the products and services offered by craftsmen, conveying and evaluating the value proposition offered and providing access for customers to buy the products and services offered. Handloom weavers use direct channels to agents or collectors to convey value to customers.

4.3. Customer Relationships

A customer relationship is a type of relationship that the craftsman determines with a specific customer segment. The motivation of the craftsmen behind building these customer relationships is for customer acquisition, customer retention, or to increase sales. From the research results, fostering good relations with collectors in the centre of Ulos. The interaction carried out is by collaborating with collectors to get yarn and even making a capital loan in the form of yarn which the handloom weaver only gets wages for ulos work. (Keep the agent or gallery satisfied).

4.4. Revenue Streams

Revenue streams are the ability of craftsmen to generate income from the sale of ulos. The income stream is only obtained from ulos sales. Cost of sales, another part is asset leasing.

4.5. Key Resources

Key resources are the most important assets craftsmen need to do a business model work. resources help artisans to create and offer value, reach targeted market segments, maintain relationships with customer segments, and earn profits. Key resources can be physical, financial or financial, intellectual or knowledge, and human. Based on the results of the analysis, the key resource is a gedogan loom (handloom). handloom is a material that is designed to weave on the floor. Yarn is a material that bleached white cotton and thread. The other key resource is knowledge of weaving that is a traditional heritage.

4.6. Key Activities

Key activities include offering a value proposition, reaching markets, maintaining customer relationships, and making profits. Key activities are categorized into production, problem-solving, service, and promotion platform/network. The production activity starts from purchasing yarn, then dyeing the yarn, then the yarn is spun (machine-spun threads), put into the gedogan loom, and then woven by hand (handloom weaving). The weaving results will be sold to agents or galleries and consumers. the ulos weavers now mostly use synthetic dyes and machine-spun threads, allowing weaving to be carried out effectively and more efficiently.

4.7. Key Partners

Key partners describe a network of suppliers and partners who deal with handloom weavers. Forge partnerships aim to optimize business models, reduce risks, and acquire resources. Partnerships are divided into four types: strategic alliances between non-competitors, cooperatives consisting of strategic partnerships between competitors, joint ventures to develop new businesses, and buyer-supplier relationships to ensure the supply of required production materials. Weavers can buy raw materials from the yarn suppliers directly, but it is about 50 km, so agents or collectors bring the yarn. The other partner is to establish a Bumdes in Sigaol village. However, the role of Bumdes has been reduced, and all products have been sold to collectors. Little craftsmen are selling to the gallery.

4.8. Cost Structure

The cost structure describes all costs incurred in operating a business model, including creating and delivering value to customers, maintaining customer relationships, and earning profits or revenues. The cost structure is cost-driven, focusing on minimizing costs to a minimum to create and maintain the most streamlined cost structure using the low-price value proposition. The costs incurred are for operational costs, which consist of purchasing handlooms, then operational costs, such as purchasing yarns, dyeing yarns, and machine-spun threads. In addition, there are also unexpected costs, such as repairing damage to gedogan equipment and errors in designing ulos so that you buy more yarn (maintenance costs).

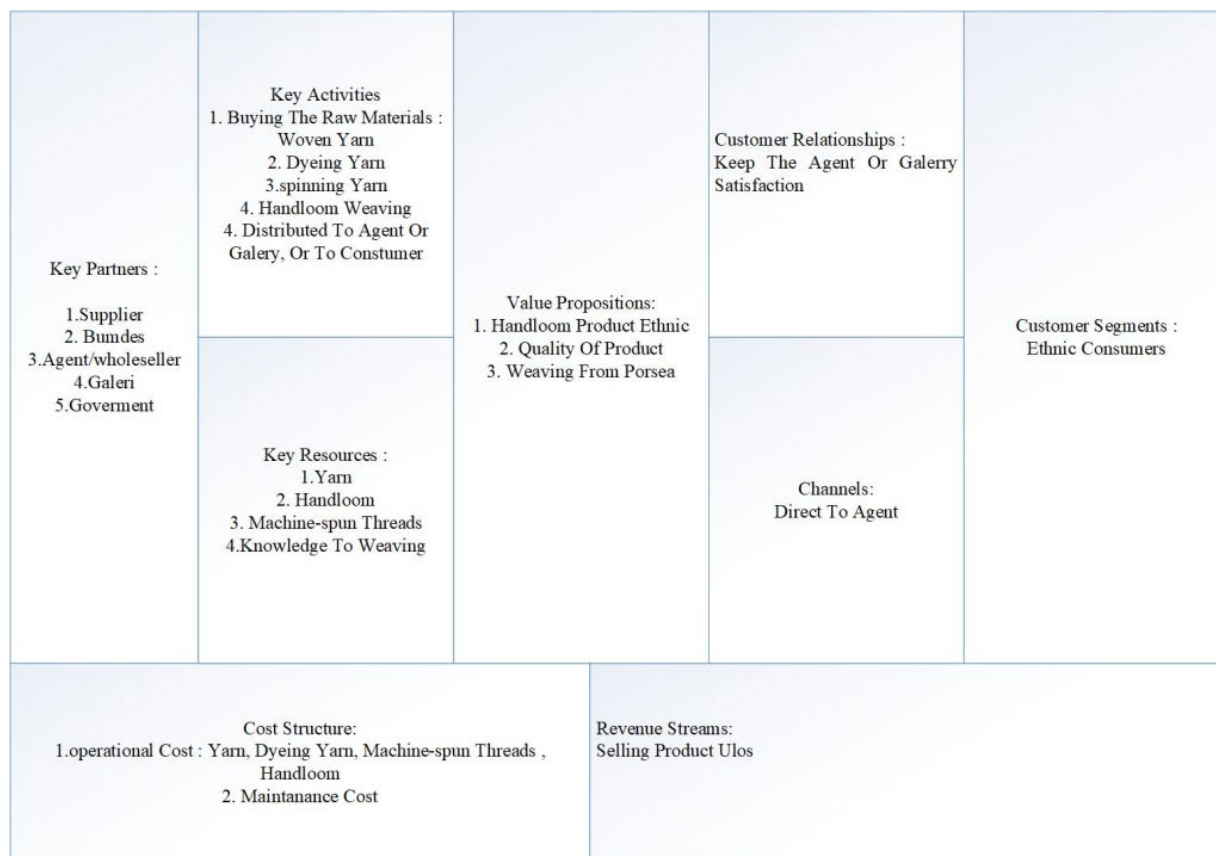


Figure 1. Business Model Canvas Ulos

5. Conclusion

By using the Business Model Canvas proposed by (Osterwalder & Pigneur, 2010), the development position of the ulos craftsman business is still in a position that operates on the availability of raw materials, equipment, and labour (Key Resources). What about the purchase and storage of raw materials, production, promotion, marketing, as well as product evaluation and development (Key Activities), how to partner with suppliers of yarn raw materials, with microfinance institutions and banks, the government (Key Partnership), how about investment costs, fixed and variable costs, maintenance costs, credit instalments (Cost Structure), Value Proposition, namely the added value given to customers such as products from Sigaol village only (Porsea) will be an added value in itself because all woven fabrics from there are considered to have good quality and distinctive product characteristics. It indicates the activities of those who sell products to collectors or agents. In general, the product will be sold to collectors and craftsmen only work on weaving to meet the necessities of life.

On the other hand, there is still a lack of understanding of the target market segmentation. The traditional craftsmen still do not pay attention to who is the market segmentation. They are still limited to selling to collectors or agents. The market consists of various buyers who buy a product according to their wants, resources, location, and buying habits. Because each has unique needs and wants, each buyer has their market potential. We recommend that the craftsmen design their marketing program for each market segment. The selection in that segment will impact other variables mentioned in the Business Model Canvas concept. With clarity in choosing one segment, it will require separate services (value propositions) due to specific problems and needs. Reached and served with different distribution channels. A different approach (customer relationship) is needed. Different segments will provide different profitability options (revenue stream).

Therefore, it is very important in the accuracy of the selection of market segmentation because this will direct craftsmen to target the appropriate consumer market and also shape the image and quality of craftsmen in the eyes of the target consumers as well as the foundation and basis for starting their business (Levitt, 1993). The COVID-19 pandemic has brought this business down. Prohibiting traditional party activities such as deaths and weddings has reduced the demand for ulos products (Sitepu, 2020). As a result, many craftsmen switch to agricultural activities. As a result, this industry cannot grow. It happens because of an unclear business model, market segmentation problems, capital, investment, lack of consumer collaboration in designing.

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References

- Al Mamun, A., & Ekpe, I. (2016). Entrepreneurial traits and micro-enterprise performance: a study among women micro-entrepreneurs in Malaysia. *Development in Practice*, 26(2), 193-202. doi:10.1080/09614524.2016.1135879
- Amit, R., & Zott, C. (2012). Creating Value Through Business Model Innovation. *MIT Sloan Management Review*, 53 part 3 p 41-49(<https://sloanreview.mit.edu/article/creating-value-through-business-model-innovation/>).
- Buckley, C. (2017). Looms, Weaving and the Austronesian Expansion. In *Spirits and Ships* (Vol. p 273-324.); ISEAS Publishing https://www.researchgate.net/profile/Christopher-Buckley-5/publication/323889122_7_Looms_Weaving_and_the_Austronesian_Expansion_Cultural_Transfers_in_Early_Monsoon_Asia/links/5d53de8da6fdcc85f89072817-Looms-Weaving-and-the-Austronesian-Expansion-Cultural-Transfers-in-Early-Monsoon-Asia.pdf.
- Calderon, G., Iacovone, L., & Juarez, L. (2017). Opportunity versus Necessity: Understanding the Heterogeneity of Female Micro-Entrepreneurs. *The World Bank Economic Review*, 30(Supplement_1), S86-S96. doi:10.1093/wber/lhw010
- Carter, M., & Carter, C. (2020). The Creative Business Model Canvas. *Social Enterprise Journal*, 16(2), 141-158. doi:10.1108/SEJ-03-2019-0018
- Coombes, P. H., & Nicholson, J. D. (2013). Business models and their relationship with marketing: A systematic literature review. *Industrial Marketing Management*, 42(5), 656-664. doi:<https://doi.org/10.1016/j.indmarman.2013.05.005>
- Crittenden, V. L., Crittenden, W. F., & Ajjan, H. (2019). Empowering women micro-entrepreneurs in emerging economies: The role of information communications technology. *Journal of Business Research*, 98, 191-203. doi:<https://doi.org/10.1016/j.jbusres.2019.01.045>
- Gassmann, O., Frankenberger, K., & Csik, M. (2014). *The business model navigator: 55 models that will revolutionize your business*: Pearson UK <https://www.alexandria.unisg.ch/240196/>.
- Hong, Y. C., & Fauvel, C. (2013). Criticisms, variations and experiences with business model canvas. *European Journal of Agriculture and Forestry Research*, 1 part 2(<https://www.eajournals.org/journals/international-journal-of-small-business-and-entrepreneurship-research-ijbsber/vol-1-issue-4-december-2013/criticisms-variations-experiences-business-model-canvas-3/>), 26 -37.
- Makkarennu, Mahbub, A. S., & Ridwan. (2021). An Integration of Business Model Canvas on Prioritizing Strategy: Case Study of Small Scale Nontimber Forest Product (NTFP) Enterprises in Indonesia. *Small-scale Forestry*, 20(2), 161-174. doi:10.1007/s11842-020-09462-5
- Marques, C. S., Leal, C. T., Santos, G., Marques, C. P., & Alves, R. (2017). Why do some women micro-entrepreneurs decide to formalize their businesses? *International Journal of Entrepreneurship and Small Business*, 30(2), 241-258. doi:10.1504/IJESB.2017.081439
- Moggi, S., Cantele, S., Vernizzi, S., & Beretta Zanoni, A. (2016). *The Business Model Concept and Disclosure: A Preliminary Analysis of Integrated Reports, p1309-1320*. Paper presented at the 9th Annual Conference of the EuroMed Academy of Business. <https://emrbi.org/wp-content/uploads/2016/08/euromed2016bof.pdf>.
- Noer, K. U. (2021). From Villages to World Markets: Women and E-Commerce in East Sumba, East Nusa Tenggara. *BASKARA: Journal of Business Entrepreneurship & Regional ...*, 4(1), 63-71. doi:<https://doi.org/10.54268/baskara.4.1.63-71>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation : A Handbook for Visionaries, Game Changers, and Challengers*. United States of America: John Wiley & Sons, Inc., Hoboken, New Jersey.<https://www.wiley.com/en-us/Business+Model+Generation:+A+Handbook+for+Visionaries,+Game+Changers,+and+Challengers-p-9780470876411>.

- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). *Value proposition design: How to create products and services customers want* (Vol. 2): John Wiley & Sons, <https://www.wiley.com/en-us/Value+Proposition+Design:+How+to+Create+Products+and+Services+Customers+Want-p-9781118968055>.
- Saragih, M. G., Saragih, L., Purba, J. W. P., & Panjaitan, P. D. (2021). *Metode Penelitian Kuantitatif: Dasar-Dasar Memulai Penelitian*: Yayasan Kita Menulis, <https://kitamenulis.id/2021/10/23/metode-penelitian-kuantitatif-dasar-dasar-memulai-penelitian/>.
- Shin, J., & Park, Y. (2009). On the creation and evaluation of e-business model variants: The case of auction. *Industrial Marketing Management*, 38(3), 324-337. doi:<https://doi.org/10.1016/j.indmarman.2007.06.017>
- Simanjuntak, M., & Manalu, S. A. (2019). Innovative Business Models in Developing Meat Ecotourism in Toba Samosir. *Journal of Physics: Conference Series*, 1175(1), 1-7. doi:10.1088/1742-6596/1175/1/012197
- Sort, J. C., & Nielsen, C. (2018). Using the business model canvas to improve investment processes. *Journal of Research in Marketing and Entrepreneurship*, 20(1), 10-33. doi:10.1108/JRME-11-2016-0048
- Storbacka, K. (2011). A solution business model: Capabilities and management practices for integrated solutions. *Industrial Marketing Management*, 40(5), 699-711. doi:<https://doi.org/10.1016/j.indmarman.2011.05.003>
- Van Der Pijl, P., Lokitz, J., & Solomon, L. K. (2016). *Design a better business: New tools, skills, and mindset for strategy and innovation*: John Wiley & Sons, <https://www.wiley.com/en-us/Design+a+Better+Business:+New+Tools,+Skills,+and+Mindset+for+Strategy+and+Innovation-p-9781119272113>.
- Zott, C., & Amit, R. (2007). Business Model Design and the Performance of Entrepreneurial Firms. *Organization Science*, 18(2), 181-199. doi:10.1287/orsc.1060.0232