

Planning Catering Business Model for E-Commerce SOA Based: AU-OR!



Aqsha, Ulfah Fauziyah, Kevin Tee, Emil R Kaburuan

Abstract: The population and the many activities of people in big cities like Jakarta make catering become one of the services that are needed by the community. Society is one reason that catering services are needed. The need to order catering has increased to become an opportunity in the food service business. But in practice, it is difficult to find information about the catering that is needed information or marketing from the seller of the service that is felt lacking. The purpose of this study is to design e-commerce applications for catering businesses based on service-oriented architecture (SOA) so that they can integrate several service selling entities and help people find easier food service. The benefit of this research is finding an e-commerce application design for the catering business, can get catering information more easily and can make catering reservations easier. The method used in this research is observation on the respondent who are a catering consumer and business canvas model from the observation. The results of this study are SWOT Analysis, Business Model Canvas, and the design of e-commerce prototypes for catering businesses that can be used in catering industry which will going to e-commerce industry.

Keywords: e-commerce; catering; service-oriented architecture (SOA)

I. INTRODUCTION

The rapid increase in Indonesia's population raises the need for catering services because of each person that has an increase of community activities, especially in large cities, which resulted in a lack of time for the community to complete several daily needs activities [1]. Catering and party preparation is one of the needs that are quite sought after by these circles. The majority of people who are busy working from morning to evening and do not have the opportunity to prepare dinner or organize a party need help from a seller of catering services.

In addition to alleviating the responsibility of the community for the preparation of these activities, it binds efficiency and also reduces the costs needed. For example, cooking requires energy, gas consumption and food ingredients. Then the party preparation requires transportation costs for surveys and so on.

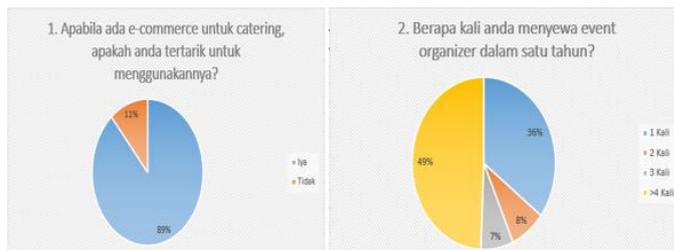


Figure 1.1 The need for catering in Jakarta

From the total population of Jakarta as many as 10 million people [1], the author take 0.0015% as respondent to perform survey by giving randomly with working status, the authors found that the need for catering was quite large. This is due to the busyness of the community which results in a lack of time for the people of Jakarta to organize activities.

Kabupaten/Kota Regency/City	Jenis Kelamin (ribu) Sex (thousand)				Rasio Jenis Kelamin Sex Ratio
	Laki-Laki Male	Perempuan Female	Jumlah Total		
1. Kepulauan Seribu	11 720	11 620	23 340		100,86
2. Jakarta Selatan	1 096 469	1 089 242	2 185 711		100,66
3. Jakarta Timur	1 436 128	1 407 688	2 843 816		102,02
4. Jakarta Pusat	457 025	457 157	914 182		99,97
5. Jakarta Barat	1 246 288	1 217 272	2 463 560		102,38
6. Jakarta Utara	867 727	879 588	1 747 315		98,05
DKI Jakarta	5 115 357	5 062 567	10 177 924		101,04

Figure 1.2 Total Population of Jakarta [1]

With the internet, some activities that should take several stages become more efficient because some of the activities intended such as communication can be done via email with a smartphone. Likewise, with buying and selling transactions that can be done through e-commerce. According to [2], E-commerce is a way to develop tools for online transactions between sellers and buyers. The information technology industry sees e-commerce activities as applications and applications of e-business related to commercial transactions, such as: electronic fund transfers, SCM (Supply Chain Management), electronic marketing (e-marketing), or online marketing (online marketing), online transaction processing, electronic data interchange / EDI, etc. E-commerce is part of e-business, where the scope of e-business is broader, not just commerce but also includes collaborating business partners, customer service, job openings etc.

Manuscript published on 30 September 2019

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In addition to www network technology, e-commerce also requires database or database technology (e-mail), e-mail, and other forms of non-computer technology such as shipping systems, and payment instruments for this e-commerce.

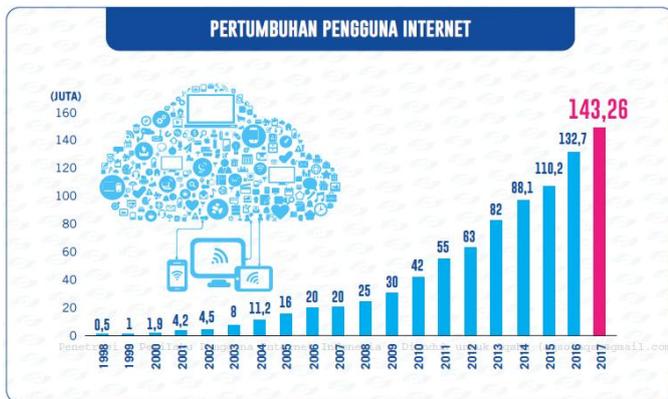


Figure 1.3 Growth in the number of internet users in Indonesia [3]

Based on Picture 1.2, 53 percent of Indonesia's population are internet users [3]. This is a good opportunity for e-commerce businesses. Until the year xx e-commerce sales turnover reached xx number. This figure can be said to be quite large and prove the existence of opportunities for e-commerce businesses in Indonesia. According to xx, many business people in Indonesia are turning to e-commerce businesses with the aim of gaining more profits.

However, until now there have been difficulties finding information on catering providers because of the many catering service providers who have not become online business people. The author will conduct research to create an e-commerce business model for catering businesses through platforms based on serviced-oriented architecture (SOA). The business model is expected to help provide the maximum benefit for the catering business. Then the authors hope that consumers can find information and make reservations for catering services more easily. The method used in this study is observation by conducting interview and business model canvas.

II. LITERATURE REVIEW

A. Technopreneurship

Technopreneurship can be define as entrepreneurship which provide innovation hi-tech product or service or both [4]. According to [5], technopreneurship is more broad which is covering technology semi-conductor to personal computer accessory. It can be said that technopreneurship is entrepreneurship which utilize or involving technology.

B. Catering

According to [6], Catering is a business which provide food, catering services included in the commercial catering industry with the intent and purpose of the company to get profit. Through catering services aimed at fulfilling and satisfying the needs of consumer through the product or services provide.

C. E-Commerce

[7] Indonesia is an archipelago located in Southeast Asia which consists of more than 12,000 islands with 5 major islands, namely Java, Sumatra, Sulawesi Kalimantan and Papua; Indonesia has an area of 9.8 million square kilometers and the area is 1.9 million square kilometers and the sea area is 7.9 square kilometers. [8] Indonesia is inhabited by 2262 million people, 70 percent of the population in Indonesia inhabits Java, which is 149,162 million.



Figure 2.1: Internet User Penetration in Indonesia [3]

Based on the survey results [3], the composition of internet users in Indonesia amounted to 54.68 percent which is 143.26 million of Indonesia's total population. Then it can be seen in Figure 2.1 that internet penetration is also increasing every year. [9] Based on previous research results, suggests that people in Asian countries tend to be more dependent on social interaction. [3] In Indonesia, the platform for social media gets more visitors, which is 87.13 percent of the population of internet users. In Indonesia there are many e-commerce businesses that provide services in accordance with the character of the Indonesian community, namely for interaction.

D. SWOT

According to [10], SWOT analysis is the identity of various factors systematically to formulate the company's strategy. This analysis is based on logic that maximizes strength and opportunity, but on the other hand also to minimize the weaknesses and threats that will be faced by an entrepreneur. Therefore, analysis in determining external factors such as Opportunities and Threats is done first, after determining external factors, then the next is determining internal factors such as Weaknesses and Strengths that can be maximized.

E. Business Model Canvas

The business model developed by [11], managed to change complex business concepts to be more structured and simpler. With a canvas approach, or what is called Business Model Canvas. Where there are 9 parts of the business model.

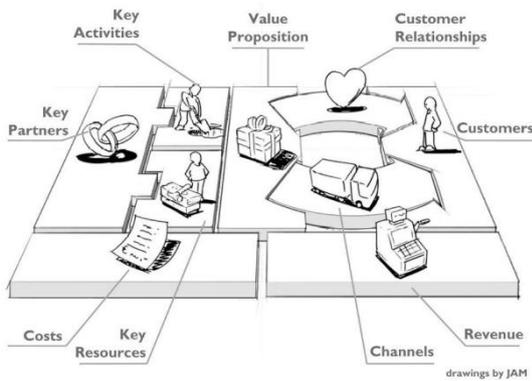


Figure 2.2 Business Model Canvas [11]

From the explanation above, there are 9 components owned by the Business canvas model, namely:

1. Customer Segments: at this stage, determine which prospective customers we will go to. Consumer segmentation will determine where the company will grow.

2. Value Proposition: describe what products or services the company offers that have advantages or more value that will be given to consumer segmentation. The company has an advantage that will be able to compete with other competitors.

3. Channels: is a means for companies to convey value proportions to consumers. Companies can use media that will reach the intended consumers.

4. Customer Relationship: describes how companies think about consumer needs and also establish bonds with their customers.

5. Revenue Streams: describes the cash flow of money received by the company from each of its consumer segmentations.

6. Key Resources: company data sources that can realize value propositions. The intended resources include human, technology, equipment and advertising.

7. Key Activities: describe the main activities that must be done by the company to be able to run the business to run well and in accordance with the company's goals

8. Key Partnership: describes the company's relationship with third parties so that the business model process can run.

9. Cost Structure: describes all types and magnitude of costs incurred by companies that arise due to the operational of the business model.

To make a business, both in its planning and design, a tool is needed to measure and make proper preparation so that the business can be implemented properly.

F. Service-Oriented Architecture

SOA (Service Oriented Architecture) is an approach in designing an application's architecture by reusing existing components [12]. In an environment or IT environment that uses SOA, the process inside is available as an independent

service that can be accessed without knowledge of the implementation of the platform behind it or available in different sources [12].

III. RESEARCH METHODOLOGY

The author uses 2 types of methodologies to conduct this research. The methodology used in this study is Observation and Business Model Canvas.

A. Observation

The author made observations, interviewed 10 people and gave questionnaires to 150 respondents to prospective customers taken from the Jakarta community with the status of working with ages from 23 to 45 years to make a SWOT analysis and find the need for AU-OR business. Business Model Canvas.

B. Business Model Canvas

The author uses the canvas model business to get business analysis of e-commerce models for catering AU-OR which consists of customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structures.

1. Customer segment: the author will make observations and interviews with prospective customers to determine the segmentation of AU-OR consumers
2. Value proportion: the writer will make observations and interviews with prospective customers to determine the value of services that AU-OR will offer to prospective customers.
3. Channels: the author will make observations and interviews with prospective customers to determine the channel most desired by prospective consumers to deal with AU-OR
4. Customer relationship: the author will make observations and interviews with prospective customers to determine this component
5. Key activities: the author will make observations and interviews with prospective customers to determine the activities to be carried out by AU-OR.
6. Revenue streams: the writer will analyze the key activities to determine this component
7. Cost Structure: the writer will analyze the key activities to determine this component.
8. Key resources: the writer will analyze the key activities to determine this component.

Key partnership: the author will determine this component of the analysis obtained from the SWOT analysis

IV. RESULT AND DISCUSSION

Based on observations, interviews and questionnaires conducted by the authors, the authors obtained a SWOT analysis, Canvas Model Business, Application Architecture and SOA Layer. SWOT Analysis



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A. SWOT Analysis

Based on interviews, observation and distribution of prospective AU-OR customers that have been previously conducted, the authors made a SWOT analysis for AU-OR. The following is a SWOT analysis of AU-OR.

Strength	Weakness
<ol style="list-style-type: none"> Kami memfasilitasi Catering dan EO untuk berjualan secara Online dan memperluas market share-nya. Kami mengintegrasikan berbagai macam entitas Catering dan EO dengan fungsi-fungsi yang mendukung sistem kami. User/Customer bisa mendapatkan kemudahan dengan satu akses apps saja seperti pembelian, payment gateway User/Customer dapat melakukan perbandingan harga dengan layanan budget planning User/Customer mendapatkan recommendation pilihan layanan berdasarkan analisa dari social media 	<ol style="list-style-type: none"> Kurangnya kredibilitas sehingga sulit untuk bekerjasama dengan entitas yang sudah lebih mature. Kemungkinan terjadinya conflict of interest dari setiap entitas yang bekerjasama dengan kami. Potensi adanya kompetitor yang membuat proses bisnis yang sama Adanya kemungkinan untuk user/customer melakukan "potong kompas" sehingga tidak menggunakan aplikasi ini. Barang atau Jasa yang disediakan tidak lengkap atau tidak memenuhi kebutuhan yang dibutuhkan user/customer.
Opportunities:	Threats:
<ol style="list-style-type: none"> Aplikasi kami menggunakan Blue Ocean Strategy dimana belum banyak e-commerce yang memfasilitasi segment ini. Kami melihat perubahan jaman dimana transisi dari Offline ke Online. Kepercayaan masyarakat terhadap Online yang sudah cukup dewasa. Kami membantu untuk para user/customer yang masih Offline untuk melakukan improvement tetapi tidak tahu caranya. 	<ol style="list-style-type: none"> Mindset atau sudut pandang para user/customer toko Offline yang masih melihat negatif terhadap Online. Toko Offline yang lebih mempercayai apa yang sudah mereka jalani selama ini. Toko Offline merasa lebih sulit atau repot jika menggunakan aplikasi kami dibandingkan dengan cara tradisional. Adanya entitas yang memonopoli produk di aplikasi kami sehingga harga tidak menjadi fair.

Figure 4.1 SWOT Analysis

From Picture 4.1, you can get Strengths, Weakness, Opportunities and Threats for AU-OR. The following is the description:

- Strengths
 - Facilitate catering businesses and to sell online and can expand their markets.
 - Integrating various catering entities and event organizer entities with functions that support the AU-OR system
 - Ease and security in transactions
 - Prospective consumers can make price comparisons with budget planning services
 - Prospective consumers can get service recommendations taken from social media analysis
- Weaknesses
 - Lack of credibility making it difficult to work with entities that are more mature
 - Possibility of conflict of interest from each entity that cooperates with us
 - The potential for competitors to make the same business process.
 - There is a possibility for prospective customers to "cut the compass" so that they do not use this application.
 - The goods or services provided are incomplete or do not meet the needs of prospective customers
- Opportunities
 - Our application uses the Blue Ocean Strategy where not many e-commerce facilities facilitate this segment
 - We see the changing times where the transition from Offline to Online.
 - Community trust in Online is quite mature.

- We help for users / customers who are still offline to make improvements but don't know how
- Threats
 - Mindset or point of view of Offline store users / customers who still see negativity towards Online.
 - Offline stores who have more confidence in what they have been up to now
 - The Offline Store feels more difficult or troublesome when using our application compared to traditional methods.
 - There are entities that monopolize products in our application so that prices do not become fair.

B. Business Idea

The author wants to create a company in catering industry that provide catering services and event organizer management with e-commerce concept in web application with name AU-OR stands for Aqsha Nayaka Organizer.

C. Business Model Canvas

From the results of the SWOT analysis, interviews, observation and distribution of questionnaires to prospective consumers of AU-OR, the author made a business canvas model for AU-OR. The following is the AU-OR canvas model business

Key Partner <ul style="list-style-type: none"> Catering Partner Building Partner Fintech Music & Light Partner Decoration Partner 	Key Activities <ul style="list-style-type: none"> Membangun kerjasama dengan Key Partner Membangun Infrastruktur Develop & Maintenance Sistem Promotion 	Value Proposition <ul style="list-style-type: none"> Menyediakan Platform Marketplace Untuk Event Memberikan Recommend Berdasarkan Analisa Social Media 	Customer Relationship <ul style="list-style-type: none"> Community Gathering Booth Fair 	Customer Segment <ul style="list-style-type: none"> Customer perorangan Customer Perusahaan
Key Resources <ul style="list-style-type: none"> Hire Employee Setup Office Build Infrastruktur Develop web & Mobile Apps 		<ul style="list-style-type: none"> Perubahan Layanan Dengan Mudah Memberikan Layanan Budget Planning 	Channels <ul style="list-style-type: none"> Website ANE-OR.com Apps ANE-OR.com Workshop 	
Cost Struktur <ul style="list-style-type: none"> Web Testing Marketing & Sales Product Development General & Administrative 		Revenue Streams <ul style="list-style-type: none"> Ads Banner Sharing Revenue 		

Figure 4.2 Business Model Canvas

Based on Picture 4.2, the following is a description of the AU-OR canvas model business that was created by the author.

- Key partner: the partner who will cooperate with AU-OR includes the catering entity, an event organizer and payment gateway entity
- Key activities: the activities that AU-OR will carry out include building partnerships with catering entities, building partnerships with event organizer entities, building infrastructure, developing systems and conducting promotions
- Key resources: the resources needed by AU-OR include employees, offices, infrastructure and web applications
- Value proportion: the value of services offered by AU-OR includes providing e-commerce platforms for event organizers and catering, providing recommendations from the results of social media analysis and providing budget planning services for events.

5. Customer relationships: community gathering and pair booth
6. Channel: Web application and workshop
7. Customer segments: individual customers and corporate customers
8. Cost structure: web hosting, marketing, product development and administration
9. Revenue streams: banner ads and revenue sharing

D. Design of Prototype

Based on the canvas model business analysis that has been done before, the author made a prototype design for AU-OR web application

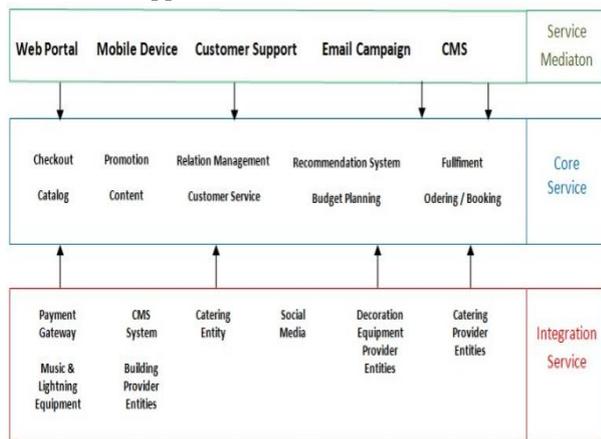


Figure 4.3 SOA Layer

Dari Picture 4.3 the following is a description of the SOA layer for AU-OR web application:

1. Service mediation: service mediation AU-OR through web portal, mobile device, customer support, email campaign and CMS
2. Core service: core services provided from AU-OR web application is checkout, promotion, relation management, recommendation system, full filing, catalog, content, customer service, budget planning and ordering or booking
3. Integration service: integration serve in the AU-OR web application is with payment gateway entities, CMS systems, catering entities, social media, catering entity entities.

Based on interviews conducted by the author to prospective consumers by explaining the business idea and AU-OR web application prototype, the resource persons were interested in AU-OR web application and services to be provided by AU-OR. The source felt that the AU-OR web application could facilitate getting information about events and catering, order catering and events organize and provide effectiveness and ease the work of prospective customers in ordering these services.

V. CONCLUSION

The e-commerce business model for catering gets a good reaction and can provide considerable benefits because it has quite a lot of enthusiasts and is felt to be needed by the people of Jakarta who have a fairly high level of activity. The use of SOA for e-commerce businesses for catering can also provide convenience in e-commerce implementation which requires to cooperate with several other entities and also can help catering industry growing its business.

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