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Optimize Business with Omnichannel and User Experience using Zachman Framework at PT XYZ

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Abstract

Dynamic modern life makes people use digital technology to interact and also in shopping PT XYZ, which is a pioneer e-commerce company in the field of communication, computer and electronics located in Jakarta, faces challenges in increasing sales and establishing good relationships with customers amid increasingly competitive local and foreign e-commerce. Companies need to build systems to manage relationships with customers effectively by using all the data of company interactions. Multi-channel services on PT XYZ are quite difficult to monitor comprehensively. Because the interaction data is not in one source, so the response and provision of information to consumers becomes inaccurate. Omnichannel platform can be solution integrated all channel functions and personalize customer interaction in all communication. To be able to model the data management architecture the Zachman Framework is used, which is focused on an enterprise-scale data perspective applied to operational data management.

Keywords: *Omnichannel, Zachman FrameWork, User Experience*

1. Introduction

PT XYZ is an online store business that is engaged in the sale of IT devices or technology. This sale is supported by a variety of outlets from PT XYZ which are widespread in several places in Jakarta so that they can reach distant places and facilitate delivery, not only serving to provide information but also functioning as a place of transaction, this provides convenience to prospective customers. Because they do not have to come directly to the store but can buy with online transactions, one thing that is highly favored and called a very important thing at PT XYZ is a facility that provides prices for electronic goods in all types and types. This allows potential buyers to compare correctly with others so they can make the right choice. Many internet users use this website as a place to get references of the prices of electronic goods. According to the author of e-commerce is a very profitable business and is very much needed in Indonesia at this time because it is cheap and not long-term maintenance requires development. PT XYZ indirectly provides solutions and convenience for prospective customers to choose a more efficient and convenient way to buy their needs.

The main reason why PT XYZ can be used as an example for business development is because it has long experience in building e-commerce, the ins and outs and needs of consumers who can understand their needs today, perhaps quite different because previously PT XYZ only provided in the field of communication, computer and consumer electronic has now spread to digital products, Maintenance Repair and Operations, Electronic and Home Appliances, Printing, System Information and etc. With the challenge before it can spread to the new field, namely how to make consumers feel confident about shopping online. With the lack of collateral and trust at that time, it would be difficult at that time before the type of payment is not as much as the choice now. But

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with the consistency and development of features offered by PT XYZ, slowly consumer confidence starts to emerge until the current e-commerce trend is growing very rapidly and consumers are starting to trust and move to e-commerce and the marketplace for shopping.

Therefore PT XYZ requires the development of a business that was previously multichannel, to become an omnichannel. Figure 1 shows the target of the transition from multichannel to omnichannel which is added by big data to be able to store customer behavior from social media, access e-commerce, transactions, until the goods reach the hands of customers. So the need for enterprise architecture to be the basic framework for business development at PT XYZ with the Zachman Framework [1].

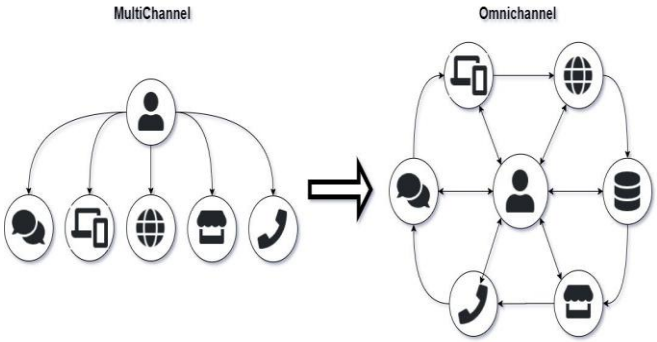

Figure 1. Transition from multichannel to omnichannel

Zachman Framework is suitable to be applied to PT XYZ according to the authors because it is compared with other frameworks because such as The Open Group Architecture Framework (TOGAF), Federal Enterprise Architecture Framework (FEAF), Gartner Framework is less suitable because the application is not in accordance with the type and business processes at PT XYZ Changes in business and technology that are not comprehensive to all parts will be concluded with a matrix that is reduced to 6 x 3 in the development of omnichannel at PT XYZ, following in the form of Scope, Business Model, System Model. The expected result in making this article is to provide optimization results from business development from multichannel to omnichannel at PT XYZ.

2. Literature Review

A. Omni-Channel

The concept of "Omnichannel" evolved from multichannel, with a specific focus on the integration and coordination of detached channels to meet consumers' needs for seamless channel transitions [2]. Notably, the concept of omnichannel is rather new to both IS and marketing fields, wherein multichannel has been generally used as an umbrella term to describe channel strategies involving multiple channel practices [3].

Omnichannel management represents a multichannel and crosschannel evolutionary step concept. Compared to the two concepts explained before, the barriers between all channels and contact points disappear completely. In fact, free to move and switch by consumers among all contact points are not only anticipated but liked [4]. The main difference between multichannel or crosschannel and the omnichannel approach is level of coordination and channel integration. According to Bendoly et al. [5], channel integration refers to the extent to which the various channels in the channel environment interact with each other. This integration enables a perfect customer experience, unique brand image, data sharing and overall management. In general, the omnichannel concept is the most extensive approach that offers several channels and contact points [6].

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B. Zachman Framework

The Zachman Framework is an enterprise architecture framework that provides a way to formally define an enterprise and define it well. This framework consists of a two-dimensional classification matrix that is built from a combination of several common questions What, Where, When, Why, Who and How [7].

The Zachman Framework is more precisely used as a tool for carrying out taxonomies in managing architectural artifacts (design documents, specifications and models) that are able to show who the target artifacts are (eg business owners, developers, etc.), and what are the main issues contained in the artifact [8].

Several sources of literature introduce the implementation of the Zachman Framework in various ways, for example:

- A framework for organizing and analyzing data
- A framework for enterprise architecture
- Classification system or classification scheme
- Matrix in the form of 6 x 6
- Two-dimensional model or analytic model

C. User Experience

User Experience is about how people feel about using a system. User experience highlights the experience, affective, meaningful and valuable aspects of human-computer interaction (HCI) and product ownership, but also includes the use and efficiency of the system. User Experience (UX) is subjective, because it is about individual performance, feelings and thoughts about the system. The user experience is dynamic, because it changes over time as the situation changes.

According to Alben (1996) the notion of UX (User Experience) is all aspects of how people use interactive products what it feels like in their hands, how they feel, how they feel about it when they use it, how it serves their purpose, and how good it is fits the overall context in which they use it [9]

The whole point of UX is ensuring that users find value in what you provide them. Peter Morville represented this through the Honeycomb User Experience, he noted that for a meaningful and valuable user experience [10], information must:

- Useful; Your content must be original and meet the needs
- Can be used; The site must be easy to use
- Desirable; Images, identities, brands, and other design elements are used to arouse emotions and appreciation
- Can be found; Content must be navigable and can be found on the spot and outside the location
- Accessed; Content must be accessible to persons with disabilities
- Credible; Users must trust and trust what you say to them

3. Research Method

The results of the case study at PT XYZ is to provide advice in optimizing the development of PT XYZ by using the Zachman Framework. With the implementation of the Zachman Framework, it is expected to improve customer outcomes. Decision making and user experience that will be the main key in assessing the results of the implementation of the Zachman Framework and big data at PT XYZ.

With the implementation of the Zachman Framework which has been modified into a 6x3 matrix it is expected to meet the needs of companies in developing business at PT XYZ. The 6x3 matrix that will be used by Planner, Owner, Designer in combining What, How, Where, Who, When, Why in implementing the Zachman Framework at PT

XYZ.

A. Current Condition Analysis

Based on the results of interviews and observations in the field there are some internal deficiencies and the application of PT XYZ that is not under the company's vision and mission, here are some notes from the author.

- Inconsistent information
  When customers move using different channels (from offline to online or vice versa), they often find inconsistent information. Data is presented in different designs without synchronizing content between trips along different channels. This makes for a poor customer experience when there are several products available on one channel, but not on another channel.
- Lack of Personalization
  In an era of increasingly smart consumers, consumers demand companies to record and learn their habits and track their activities on the internet regardless of the platform they use. With this, companies can synchronize their wish lists between mobile applications and Web sites or offer shopping recommendations based on shopping carts. Currently, ideally, companies are required to record when and where customers take certain actions. Then only customers can enhance the experience using the current context and past history.
- Lack of customer support
  The level of customer dissatisfaction through communication media mostly occurs especially in social media which should be used as a potential media. Ineffective customer service has caused increased customer effort and frustration. This also results in churn rates and customer friction with the company. Because getting a new customer costs five times more than satisfying and retaining old customers [11].

There is no big data implementation yet and the optimal use of CRM makes it difficult for PT XYZ to expand its business as well as in decision making, and analyze customer behavior in making transactions, whether customers feel happy in making transactions at PT XYZ, whether customers ever shop come directly to the store This is the reason why the need for PT XYZ to implement the Zachman framework.

B. Expected Conditions

Approach Omnichannel with Zachman framework over the customer experience (in other words, using the integrated solution to personalize and optimize the customer experience) this could be done by using the technology of big data intended to use customer data is collected and categorized to be marketed to individuals based on criteria that are very specifically, identifying common ground for salespeople to build relationships, and speeding up time in processing customer support experiences at PT XYZ. Customers can also ask questions or send complaints on all available channels through social media, 3rd party sending applications, telephone, or messages. Benefits for marketing, sales, and customer support can take many forms. Omnichannel marketing also deals with email marketing and SMS marketing according to transaction history, website visits, email tracking, and more. This allows the customer experience to be tracked both when they transact on the e-commerce platform and when they shop at PT XYZ's physical store.

The omnichannel strategy works by connecting all of PT XYZ's business channels. The first thing that is done is to collect and analyze all inventory information and customer data in Big Data so that information can be moved to each channel on demand. When information has been launched, the omnichannel has also been launched. What happens then is that customers who are looking at a product on the PT XYZ website can see complete details about the product including inventory information such as the

amount of inventory and which stores are still providing the product. Even this customer compilation came to the store, the store clerk knew which products were offered because he had seen the customer's history.

Figure 2. Method OmniChannel for PT XYZ

Customer service can be started from the support of social media and can switch to channel whatever the customer wanted without XYZ lose information from customers or potential customers, Context customer support has largely been transformed into customer engagement that are closer to what the customer expects.

The type of data and storage is essentially the basis for customer engagement on a large scale. CRM in the implementation in PT XYZ is used as an interface in which the customer insights into actionable business intelligence, can act as a differentiator that add humanistic elements into customer engagement strategy and make relationships more than just a transactional relationship. In combination with a convincing engagement campaign strategy with KPIs, objectives, benchmarks, and practices to ensure data integrity.

Role of CRM and Big Data in omnichannel XYZ contribute to the management task in satisfying the customer and also for insight into the real-time operational across the channel, and in some cases provide a channel to respond to it, such as direct complaints of customer service social media into divisions Customer service order immediately responded internally and to prevent negative publicity in the mass media. The true value of CRM & Big data in the world of omnichannel is to instill customer interaction with personality and empathy, which is an important differentiator for customers and prospective customers in the modern era who expect comfort, speed, data consistency and also good user experience at PT XYZ.

4. Result and Discussion

This section will explain the results of the analysis of the matrix 6 x 3 Zachman at XYZ in which the perspective of the product owner (planner), a business user (owner), and the product manager (system model) that will cross the category of questions what, how, where, who, when, and why with expected user experience improved after optimized the business. Table 2. Explains the classification model of PT XYZ by using the Zachman Framework that has been modified according to the needs of PT XYZ.

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Table 2. Zachman Framework (modified)

Questions/ Perspective	**What? Data**	**How? Function**	**Where? Location**	**Who? People**	**When? Time**	**Why? Motivation**
Scope **Product Owner**	Structural System and Organization	Business Process Management	Office	Organizations important to the business	Project Duration	Transition to Omnichannel
Business Model **Business User**	Consumer Data	Business Flow	Merchant Business	Consumer and Merchant	predetermined period of time	Boosting Sales and Promotion (CRM)
System Model **Product Manager**	Functions and Users	Flowchart	Office	User and Merchant	Timeline scheduled	Implementation Big data

A detailed perspective explanation on the product owner (planner), business user (owner), and product manager (system model) will be examined as follows:

A. Product Owner (planner)

a. What (data): What is the Structural System and Organization? Top - down organization, from C-level to staff. Figure 3. Sample for PT XYZ structure organization, where product owner, business user and product manager have different divisions.

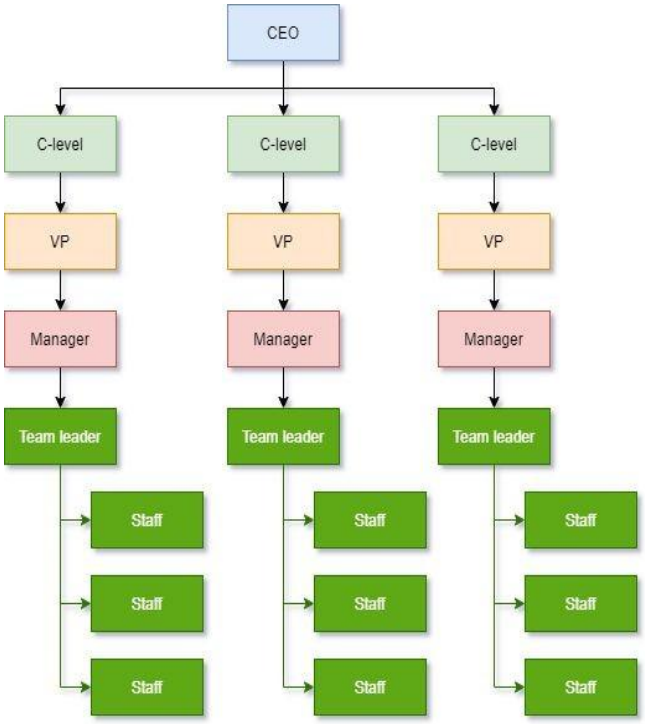

Figure 3. Sample Structure Organization in PT XYZ

b. How (function): How functionality business process management? The process between seller, buyer and PT XYZ as a platform provider. Figure 4. BPMN flows when doing transactions.

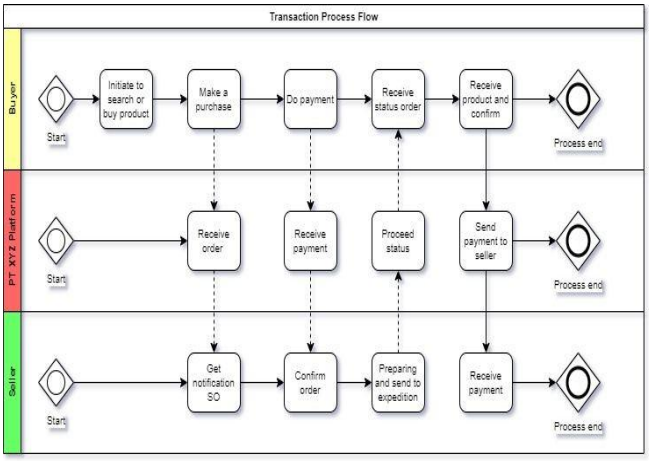

Figure 4. Transaction Business Process Modelling Notation

c. Where (location): Where will the implementation take place? In the company due to analysis and discussion.
d. Who (people): Who is involved in the work? All parties from the business and technology sides will join in developing this omnichannel platform. Figure 5. Interaction product owner between technology, business and customer/merchant in PT XYZ.

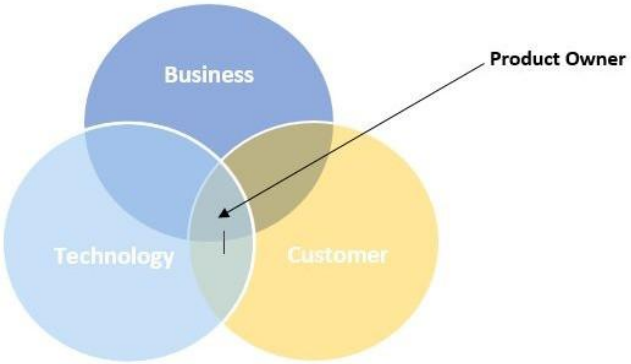

Figure 5. Interaction Product Owner between Technology, Business and Customer/Merchant.

e. When (time): When can it be started for work? Work will start when the requirements of the business team have been collected and the vendors are also ready to integrate the platform.
f. Why (motivation): Why does it have to be a motivation in business development? Because the change from the many channel platforms will be made into an omnichannel which is expected to make it easier for users to make transactions at PT XYZ and can collect overall customer data.

B. Business User (owner)
a. What (data): What is the source of customer data? User services, when a customer registers at PT XYZ, all customer transactions will be stored.
b. How (function): How is business flow implemented? For the business flow is quite common for transactions.
c. Where (location): Where will the implementation take place? on the merchant side because the merchant needs to fill in the product and collaborate with PT XYZ in order to open a store on the PT XYZ platform.

d. Who (people): Who will be the target? Business owners and customers who will shop through this omnichannel platform.
e. When (time): When can it be started for development? it can be started immediately because of the need for system and business development. And also gather feedback from the board of directors for this implementation.
f. Why (motivation): Why does it have to be a motivation in business development? Because it can provide a better user experience because all can go through only one platform and stored the data activities of the customers later.

C. Product manager (system model)
a. What (data): What are the target implementation results? Features that will be used by merchants and customers later, user experience that will be the main target because it is expected to provide the best experience in making transactions, get information such as promos and news about a product.
b. How (function): How to explain its functionality? By using a flowchart to explain the flow of each of its functionality.
c. Where (location): Where will the implementation take place? In the company due to analyzing and interacting with software developers.
d. Who (people): Who will be the target? Customers and merchants, because they are the ones who will use this omnichannel platform.
e. When (time): When can it be started for work? After getting the target timeline from the product owner team and need to be discussed again the scope and requirements that will be the target timeline.
f. Why (motivation): Why does it have to be a motivation in business development? Because the implementation of omnichannel and big data will be a new experience for staff, and can meet the expectations of users and business teams in designing the system later.

5. Conclusion

The management capabilities of the vice president and integrated customer relations of raw big data is very important for PT XYZ to personalize customers or prospective customers. Meanwhile, omnichannel and CRM, effectively bringing together all these platforms, bringing together the most relevant communication channels in one interface, streamlining the company's interaction with customers. With omnichannel services, it will provide an opportunity for PT XYZ customers to connect to various channels, which will later be handled by trained and efficient managers who are proficient in handling various questions and communications which ultimately provide client hearings with an integrated customer experience. With omnichannel, the company can receive valuable feedback from customers and client partners for content, promos, the latest products, store locations, distribution, and other aspects of PT XYZ's business. With the support of CRM will build the ability to improve operations and generate company revenue.

In the end, the combination of Zachman framework, CRM, Big data and Omnichannel is now a comprehensive component in optimizing business at PT XYZ and also in serving customers who live many lives together with personality and empathy, which are important differentiators for customers and prospective customers in the modern era that expects comfort, speed, data consistency and also good user experience.

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