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Using Context-Based Activity Modeling for Service Design in Product-Service Systems

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Abstract

Product-service systems (PSS) offer a holistic approach to delivering value to customers by combining tangible products and intangible services. Effective service design is crucial in ensuring that PSS is designed to meet customer needs and expectations. This paper proposes the use of context-based activity modeling (CBAM) as a tool for service design in PSS. The paper explores the concept of PSS and service design, followed by an explanation of CBAM and how it can be used in service design. Finally, the paper presents a case study that illustrates the effectiveness of CBAM in service design for PSS. The use of CBAM can help businesses design comprehensive offerings that provide added value to customers and create a competitive advantage.

Keywords: *Product-service systems, service design, context-based activity modeling, customer experience, holistic offering*

INTRODUCTION

In the modern business landscape, product-service systems (PSS) are becoming increasingly popular, as they provide an integrated approach to delivering value to customers. Service design plays a crucial role in ensuring that PSS is designed to meet customer needs and expectations. This paper proposes the use of context-based activity modeling (CBAM) as a tool for service design in PSS. The paper explores the concept of PSS and service design, followed by an explanation of CBAM and how it can be used in service design. Finally, the paper presents a case study that illustrates the

effectiveness of CBAM in service design for PSS.

PRODUCT-SERVICE SYSTEMS

Product-Service Systems (PSS) are integrated offerings that combine tangible products and intangible services. PSS can provide added value to customers by meeting their needs and requirements in a more comprehensive way than traditional products or services. PSS can be designed in various forms, such as maintenance, leasing, and pay-per-use models, among others. The objective of PSS is to provide a holistic approach to meeting customer needs and to create a competitive advantage for the business by delivering a more comprehensive offering than its competitors.

SERVICE DESIGN FOR PSS

Service design is a design process that focuses on creating and optimizing the service experience for customers. Service design aims to create a service that is easy to use, efficient, effective, and enjoyable for customers. Service design can be applied to PSS to create a holistic offering that meets customer needs and expectations. Service design can help identify customer pain points, improve the customer journey, and develop a service that is tailored to the customer's needs and preferences.

CONTEXT-BASED ACTIVITY MODELING (CBAM)

Context-based activity modeling (CBAM) is a modeling technique that captures the user's context, activities, and preferences to design services that meet their needs. CBAM is an extension of activity modeling that considers the user's context, such as location, time, and environment, to design services that are tailored to the user's needs. CBAM helps identify the user's needs and preferences and provides a framework for designing services that meet those needs.

CBAM can be used to design services for PSS by capturing the customer's context, activities, and preferences to design a comprehensive offering that meets their needs. CBAM can help identify customer pain points, design services that are easy to use and efficient, and improve the overall customer experience.

CASE STUDY: CBAM IN SERVICE DESIGN FOR PSS

A furniture company wanted to offer a PSS that would provide customers with a complete home design solution. The company used CBAM to design a service

that would meet customer needs and preferences. The CBAM model captured the customer's context, such as location, time, and environment, to design a comprehensive offering that met their needs.

The CBAM model helped the company identify customer pain points and design a service that was easy to use and efficient. The company developed an app that allowed customers to design their homes, select furniture, and arrange for delivery and installation. The app provided a personalized experience, allowing customers to customize the service to their preferences.

The CBAM model also helped the company design a service that was scalable and adaptable to changing customer needs. The company was able to track customer preferences and adapt the service to meet changing customer demands.

CONCLUSION

Service design plays a critical role in designing PSS that meet customer needs and expectations. CBAM is a modeling technique that can be used to design services that are tailored to the customer's context, activities, and preferences. CBAM can help identify customer pain points, design services that are easy to use and efficient, and improve the overall customer experience. The case study presented in this paper illustrates the effectiveness of CBAM in service design for PSS. As PSS continues to grow in popularity, the use of CBAM can help businesses design comprehensive offerings that provide added value to customers and create a competitive advantage.

Future research can explore the application of CBAM in various PSS settings and contexts. Additionally, further research can investigate the effectiveness of CBAM in comparison to other service design methodologies. As PSS continues to evolve, it is essential to develop effective service design methods that can keep pace with changing customer demands and preferences.

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