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Integrating Knowledge and Society Across Disciplinary Boundaries —A Case Study of the Toyono Michi-no-Eki Project—

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Abstract

In this article, we focus on the challenges encountered and lessons learned from this project, as a case study of a multidisciplinary collaboration conducted among postgraduate students. Our project is proposing a concept design for a *Michi-no-Eki* to Toyono Town Office (a municipality located in northern Osaka Prefecture). We faced challenges in two respects: Firstly, our members come from different majors and disciplinary backgrounds. Secondly, there are various stakeholders including not only students and instructors, but also tourists, the local government, companies, and residents. We overcame these challenges by respecting each member's role in light of their respective strengths/characteristics, while simultaneously adopting a flexible approach, thereby establishing a shared conceptual ground and maintaining project momentum. This article will describe how we navigated these collaborative processes in the context of the *Michi-no-Eki* project and will present the key lessons learned from these.

Keywords: Multidisciplinary collaboration, Postgraduate students, Case study

Introduction

CBI Program (Cross-Boundary Innovation Program) is the program for doctoral students selected from The University of Osaka and it aims to develop PhD holders with high expertise and versatility for a new era who can integrate different specialized fields. The Program provides a course called “General Cross-Boundary Innovation”, a long-term project-based seminar where students address actual social problems with civil companies, municipalities, NPOs and so on as providers of issues in specific areas or fields (The University of Osaka Cross-Boundary Innovation Program, n.d.).

Case Study

Our project in General Cross-Boundary Innovation course is proposing a concept design for a *Michi-no-Eki* to Toyono Town Office (a municipality located in northern Osaka Prefecture). our goal in this project is identifying the basic functions of *Michi-no-Eki*, Roadside Station in Japan and designing a new function required for the planned *Michi-no-Eki* in Toyono Town. Michi-no-Eki provides rest amenities, information services, and community-linkage functions on the roadside, and in recent years, they have been further utilized as platforms for regional industry promotion and resident engagement (Ministry of Land, Infrastructure, Transport and Tourism, n.d.). Our first task is to survey the current status and operational models of Michi-no-Eki nationwide. Based on these findings, we then aim to formulate a new concept that includes unique perspectives of university students while incorporating both the local context and the interests of relevant stakeholders. The goal of our work is to develop a concept that makes Toyono Town an attractive destination not only for road users but also for surrounding residents and tourists.

To achieve our goal, we set 4 processes, firstly, we gather information about Toyono Town and *Michi-no-Eki.* Secondly, we identify the issues to be tackled related to Toyono Town or *Michi-no-Eki* in general. Thirdly, we make pieces of ideas for *Michi-no-Eki* in Toyono Town, and the finally, we collect these pieces of ideas and make a proposal as a whole and submit it to Toyono Town Office.

We faced 2 main key challenges during the whole process above.

The first challenge occurred in between second and third process, where we created the pieces of ideas of proposal based on the issues that we identified. We often had scattered discussion in this stage, because all of our team member has different expertise, for example, law, pharmacy, statistic and sociology. We have different approaches to the issues due to different

values and a lack of a unified framework. Therefore, we've decided to use common thought process, called "Design Thinking" (Design Thinking Institute at Eirene Management School, n.d.). In this way, we define a concrete and consistent persona, which is ideal customer of *Michi-no-Eki* with concrete age, feature, gender, and so on. We set several personas based on the issues identified in the second process, and then we could create the ideas to tackle with these issues.

The second challenge occurred in between the third and fourth process, where we made the proposal based on the ideas that we created in the third process. In this stage, we had to balance each stakeholders' expectations to *Michi-no-Eki.* For examples, Toyono Town Office wants to promote tourism and regional farming industry, tourists want well-functioning retail facility and enjoyable experience, local companies want to expend the sales of local products, and residents want to receive community services such as childcare support.

Therefore, we created 2 evaluation criteria, "Business and Public Functions", and made smaller indicators in each group based on each stakeholders' expectations. Then we evaluated each idea which we made in the third process, and could integrate these ideas into one proposal.

Conclusion

We worked on *Michi-no-Eki* project in the CBI program as a collaboration process with multidisciplinary doctoral students and various social actors. We proposed a concept design for a *Michi-no-Eki* at Toyono town, and we got 2 main challenges. One is the scattered discussions caused by diverse expertise which we have, and we managed this challenge by using common thought process called "Design Thinking". The other challenge was balancing diverse interests among stakeholders and we tackled this challenge by setting 2 evaluation criteria "Business and Public Functions".

Through these processes, we could make a final proposal to Toyono Town Office and this project gave us the insights of how we carry on multidisciplinary work especially with actual social actors.

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