IN4MATIX 281 Final Report

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Field Site

The space I observed was a farmer's market in the city of Poway. The farmer's market is located in the heart of the city – the historical epicenter. A variety of different spaces surround the farmers' market, including restaurants, small boutiques, parks, and sports fields. On Saturday mornings, roads here are closed off to accommodate the farmer's market. It spans two roads that creates a large alleyway for guests to roam around.

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1 Introduction

Amidst the bustling environment of a farmer's market, it can be difficult to isolate how people interact with artifacts in the space. In the interest of the Poway Farmer's market organization, I have explored how the socio-technical interactions in a farmer's market influences local buying and, ultimately, could increase profits for the association. These factors include: power dynamics in vendor-customer interactions, customer identity with respect to said interactions, and the physical layout of the site.

2 Research Methods Overview

Observations As a first step, I conducted observations at the farmer's market to understand the field site a bit more. I took in the environment, noting down any behavior, interaction, or artifact that I believed was of significance within the farmer's market. I was both a participant and observer, so I had the opportunity to engage with the field site from two different perspectives.

Interviews To expand on my personal perspective, I interviewed three people to better understand what data was relevant in my observations from the farmer's market. I chose to interview three customers, since they could share valuable information about their interactions with vendors in the space. We all interpret the world differently from one another, so interviews were a helpful tool to triangulate and observe whether what people say is indeed what happens.

Data Analysis To analyze the data further I performed a data analysis by coding and memoing our data. Both involve marking up our data with questions, insights, and possible questions. I let the data speak to me, and I try to find patterns within that data to justify its relevance.

Thinking Topics Thinking topics involve narrowing the scope of our observations to a single unit of analysis – in this case, the initiation of exchange. I studied the nuances that existed in the same interaction across multiple instances, so that I could then generalize the phenomenon to a larger population. I analyzed this thinking topic by answering eight questions regarding the type, frequency, magnitude, underlying structure, processes, causes, consequences, and agency. The questions served as good indicators for validating whether the thinking topic was relevant to the field site.

Contextual Inquiry Heuristics We finished our research by consolidating our insights into contextual inquiry models – diagrams that approach the field site from different angles. These models helped reveal insights that were otherwise hidden within the data. They allowed us to explore the underlying intent of the interactions we were observing from various perspectives.

3 Contextual Inquiry Models Used

Sequence and Swimming Model This model details the sequence of actions that happens during one interaction. It outlines the intent of the parties involved in the exchange, any breakdowns that occur, and how they are resolved. I modeled the initiation of an exchange by a vendor.

Identity Model The identity model helps us understand how a customer's underlying attitudes influence how they view themselves relative to the field site. I approached this model from the perspective of the customer, using quotes and stories for a strong emotional appeal. This model exposes how customers orient themselves in the world and how that contributes to their intent. The perspective of the customer helps me understand what they value and what drives them to purchase goods.

Physical Model I investigated how the physical structure, layout, space, and artifacts influenced customer flow. This model illustrates how the physical environment can shape how people interact in the space. So, I used the model to observe the physical impact the farmer's market has on its customers, namely organization by goods, groupings, vendor booths, etc.

4 Noteworthy Insights

4.1 Power dynamics in the organization

Sequence and Swimming Model This model was fitting to identify the intent and points of hesitation during an interaction between a vendor and a customer. The breakdowns that I observed during a vendor's outreach attempt exposed implicit power dynamics that existed between the two parties. In general, customers believe vendors initiate exchanges with them to attract their business. Now, in a formal relationship, the person in possession of the goods has the power. Here, we see

that though vendors have this undeclared power, customers are in control of the interaction–they control whether the transaction occurs. In some cases, the supply may also exceed the demand, which would further shift the balance of power from the vendors over to the customers. We see this particular behavior in the sequence of events when a customer showed hesitation to buy a product; vendors attempted to regain their interest and power by offering discounted prices. When the power dynamic is imbalanced between two parties, it can cause them to lose their mutual interest in the transaction. Instead, they fight to reclaim the power.

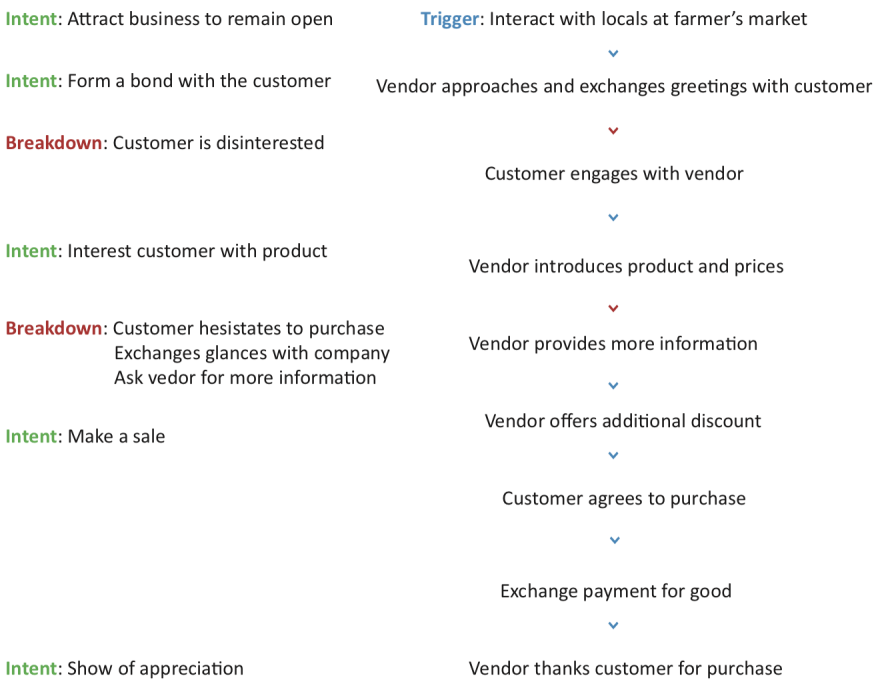

Figure 1: Sequence Swimming Model: Sequence of events from vendor/customer interaction

Identity Model I found the identity model to be useful in mapping out customer's underlying attitudes. Customers expressed feeling guilt and pressure to purchase goods from vendors, particularly when they were sought out. Customers liked having control over their shopping experience, but instead felt compelled to purchase something that they didn't initially intend to. This created an unhealthy power dynamic that favored vendors.

Figure 2: Customer Identity Model: Guilty Plea

Data Analysis - Agency A negotiation of power is born from the solicitation and exchange of goods between the vendor and the customer. Customers' feelings of guilt and pressure were conceived from this power disparity. Attendees at a farmer's market assume the role of customers, creating an expectation for them to purchase goods. So, customers believed they had to reciprocate a vendor's investment in their interaction through a transaction.

> *"Because I don't want to be in a situation where I have to buy something if I'm unsure about it."*

Interpersonal interactions may help balance the social dynamics between vendors and customers. Regular interactions with the same vendors create more established personal relationships between customers and vendors, which often lead to greater interpersonal engagement and minimizes the power disparity between the two parties.

> *"Yeah, it is nice getting that direct attention. I think the vendor kind of knows your history because you keep going to them and buying it."*

Significance

Implicit power dynamics that exist between two parties create a hostile relationship that each party can manipulate to fulfill their personal agenda in the transaction. Vendors and consumers in the farmer's market both have control over the sequence of events leading to a transaction. Vendors asserting their power over the customers will discourage them from returning and investing back into the farmer's market. The farmer's market organization relies on the profit vendors earn, so customer acquisition and return are imperative to keep the vendors and market operating.

4.2 Customer Identity Relative to Vendor Exchange

Identity Model This model captured the underlying attitudes customers have of an interaction. During the interviews, participants shared the value of the experiences they had with vendors. These experiences not only contributed to the overall customer experience, but also played into their decision on whether to return. It was particularly interesting to see that the customer adopted different identities relative to each vendor. The "I am" characterizes these attributes that the customer has in relation to the farmer's market. So if a customer frequently returns to a vendor, they view themselves as regulars.

Figure 3: Customer Identity Model: "I am"

The "I shop" category defines the identity elements related to their shopping experience. In the case of the farmer's market, the customer shops with no real intent and is a target for vendors. Interactions that occur during the shopping phase impacts how the customer feels and the likelihood of returning.

Figure 4: Customer Identity Model: "I shop"

"I feel" attempts to reveal the identity elements behind the customer experience. Customers often feel pressured when vendors engage with them for business. To escape feelings of guilt, customers often succumb and purchase goods from a vendor. However, that same customer enjoys the exchange when they have control over their interaction and are able to interact with vendors at their own convenience. We see how customers' identities differ in relation to the type of experiences vendors foster for their customers. So, we have a better understanding of what the customer values in the space and how their interactions with vendors contribute to their satisfaction.

Figure 5: Customer Identity Model: "I feel"

Physical Model The rendering below shows a close look at a vendor booth. Due to COVID, vendors were required to have barriers between themselves, the products, and the customers. Customers no longer had the flexibility to directly interact with the products they were interested in purchasing. The barrier limited social engagement and instead encouraged more transactional exchanges.

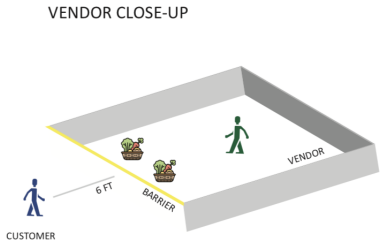

Figure 6: Physical Model: Vendor Booth Closeup

Sequence and Swimming Model From the sequence and swimming model we see that the vendor has an initial intent to form an interpersonal connection with the customer. By acting on this intent, the vendor attempts to encourage the customer into purchasing a product. The vendor here uses an emotional appeal to manipulate customers into buying their goods. After all, the vendor seeks out new customers to remain a viable business.

Figure 7: Sequence Swimming Model: Vendor Intent

Data Analysis - Consequence A consequence of an interaction between a vendor and customer is whether or not a trade of goods occurred. The expectation of an interaction in a farmer's market is typically transactional, so it's assumed that customers will make purchases. There may also be an emotional exchange that occurs, depending on the interpersonal engagement involved in the exchange. A successful transaction supports the vendor's current business operations and helps increase their profit margins. If we think about the indirect consequences that ensue from an exchange, we see that customer purchases foster community and local buying. As we saw with the identity model, locals are keen on supporting their community by shopping at a farmer's market.

Significance

We see that customers respond positively when transactions involve emotional exchanges. Customers appreciate vendors' investment in their interaction, so when there is an interpersonal exchange, customers are encouraged to not only return for the product but for the vendors themselves. Since the customers do not exclusively rely on the product to shape their experience, there is value in the interpersonal relationships vendors build with customers. Catering to what the customer desires improves the chances of that same customer returning back to a vendor, which would drive up the vendor and farmer's market returns.

4.3 Physical Layout Shapes Customer Flow

Physical Model The physical model is effective in mapping out customers' movement through the market. It also happened to expose the breakdowns customers face moving through the space. It is important to note that the site provides only one entry point. While this vantage point does offer greater visibility at the variety of booths versus elsewhere, locals are forced to walk into the same point that's surrounded by the same vendors. So, other vendors may be disadvantaged to have their booths further away. The exits also pose a similar problem, customers are required to walk past additional vendors to reach the exit points, only then to be greeted by more vendors. This may contribute to the frequency that customers are targeted for business.

I also mapped the range of physical space the vendor has to interact with customers. Booths that were on the outside or corner spaces had more room to engage with customers in different directions, increasing the likelihood of vendor interactions with customers.

The model provided valuable insight into how the physical layout of the farmer's market contributes to the social dynamics between vendors and customers. Customers' movement throughout the space helped encourage vendors to interact with them, but they were still limited in capacity due to the physical barriers put up for safety measures.

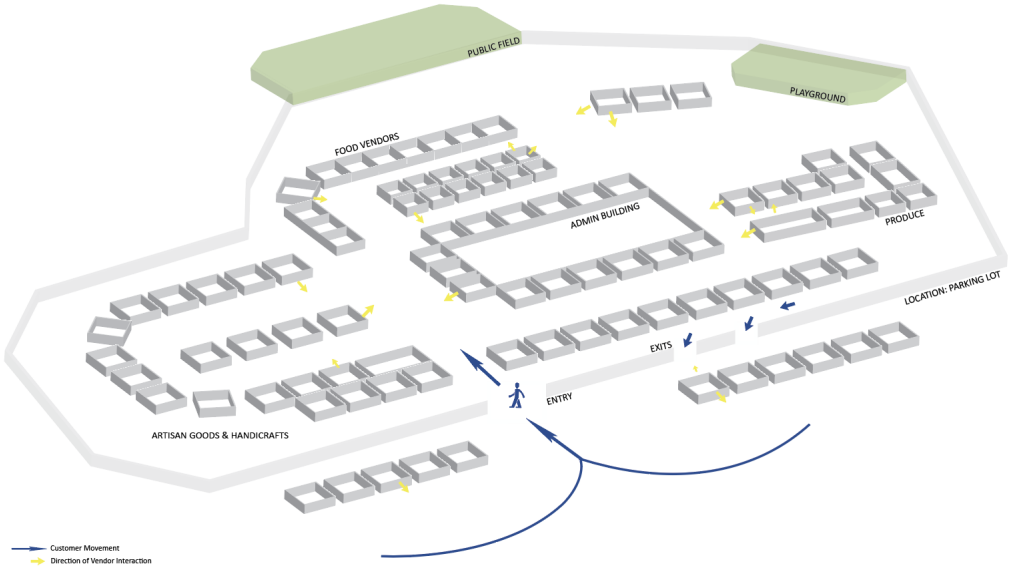

Figure 8: Physical Model: Customer Flow"

Data Analysis - Cause If we think about the physical setup of vendors in a farmer's market, we see that it has a substantive impact on the interaction between vendors and customers. Entry and exit points typically have heavier foot traffic, so vendor booths around these areas are more conducive to business.

Vendors need to leave enough room for open interaction with customers. The goods also need to be accessible for customers to purchase. This was especially relevant during COVID, because vendors were required to install barriers to prevent customers from approaching their goods too closely. And through previous models, we see this yield more transactional exchanges and fewer interactive exchanges between the vendor and the customer.

Significance

The physical layout of the farmer's market creates an environment where customers experience breakdowns throughout their movement through the physical space. We see that the setup of the market enables interactions between vendors and customers. A higher number of interactions would create more opportunities for vendors to solicit customers for business. Other models showed customers often feel burdened by the interaction and expectations of vendors, so in increasing potential for interaction, the physical layout may actually negatively impact customers' desire to return to the market.

5 Conclusion

The socio-technical interactions in this space impact customer intent and purchases. The farmer's market creates an environment prone to imbalanced power dynamics between vendors and customers. If vendors manipulate interactions with customers using an emotional appeal, customers find the interaction and transaction less desirable. The physical layout of the farmer's market enables these exchanges as well, possibly contributing to the customers' feelings of pressure and guilt. Vendors should be conscious of the experiences they create with customers, who form their identity in the market relative to those experiences. To encourage customer return, vendors should create healthy social dynamics with customers to increase the likelihood of future purchases. Vendors require a growing customer base to keep their business running, so tailoring their marketing and outreach solutions to customers will yield better chances for increased profits.