

# DIGITIZING AGRIBUSINESS VALUE CHAINS

*Lessons on re-designing how farmers  
and traders interact with digital  
platforms*

**Developed by:**  
Youth Impact Labs in collaboration  
with Virtual City

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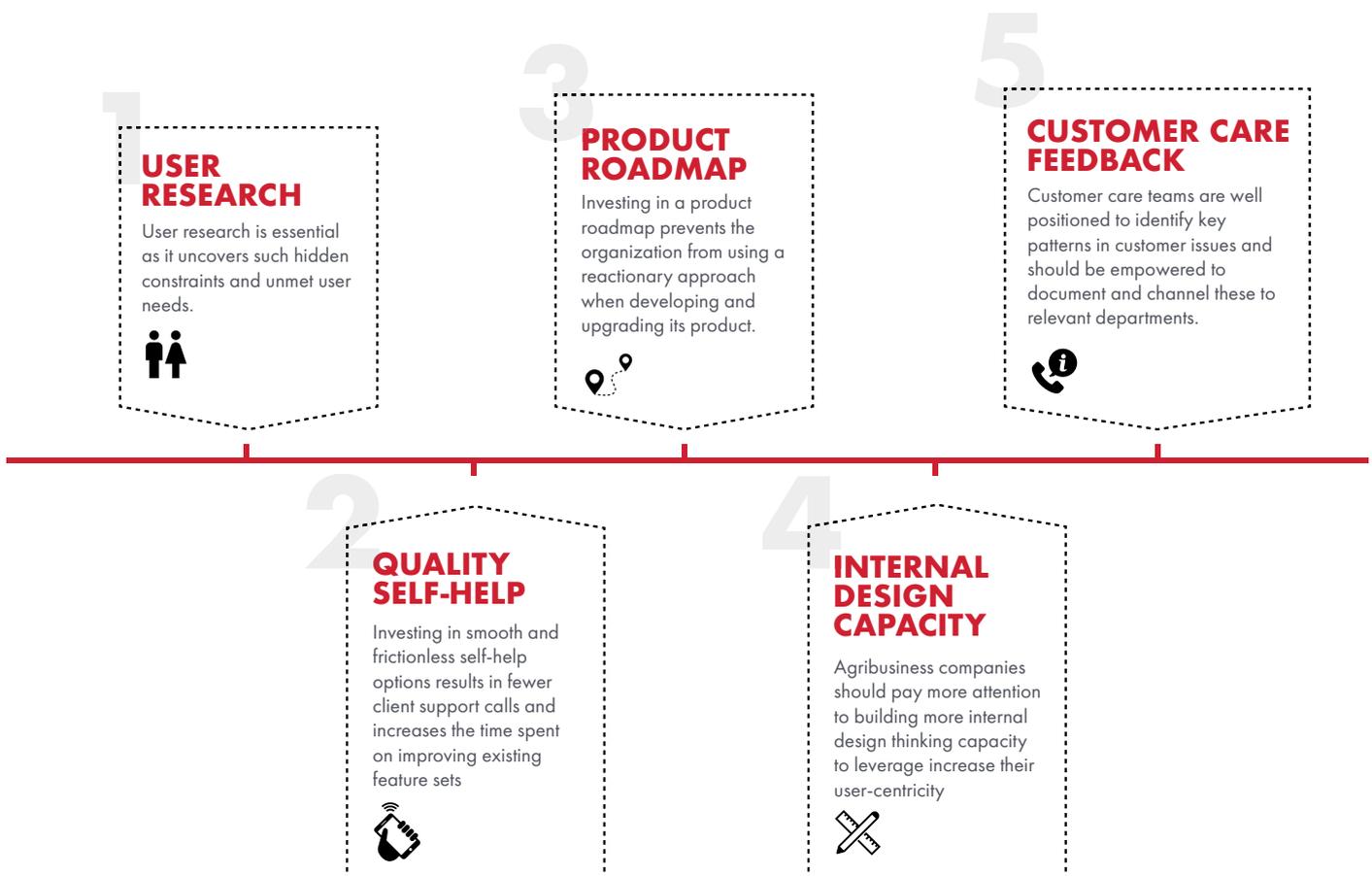
## State of the Sector

Agribusinesses handle one or all the processes involved in managing farm produce from production at farm level to final sales at markets and grocery stores. These processes include farmer recruitment, production and extension services, harvesting activities and collections and inventory management and distribution at pack houses and retail centers. After collection of produce at aggregation centers, produce is delivered to pack houses and later transported to retail outlets. Majority of agribusinesses in Kenya today still have their operations powered by manual record keeping or at best use excel sheets to digitize and provide some automation and transparency to their operations. A few of them use dedicated systems such as Virtual City's suite of applications, dubbed *Horticultr*, which assists in inventory management and point of sale, determines, measures and tracks the true value due to a farmer and enables aggregation centers to get visibility on deliveries, quantity, payments and credit check off datasets in real time against preset KPIs.

However, companies that seek to digitize their operations continue to struggle to smoothly transition their systems to digital platforms. Often such companies are met with complex, user-unfriendly systems, which rely heavily on training for the end user to understand. These systems though heavy on their features, barely focus on prioritizing User Experience and User Interface patterns to optimize the user's experience.

## Improving the Agribusiness Tooling

Our work with Virtual City unearthed several design challenges which can be addressed if the following recommendations are applied in the companies which create tools to power different aspects of Agribusinesses. The following are key design considerations that should be put in place when digitizing various levels of agribusiness value chains:



## 1

## *Invest in User Research*

During a field visit we found that the typical users – farmers, traders, etc. – of the systems offered by agribusiness tech companies tend to have very little exposure to digital technologies. As such, interactions with web or mobile platforms can prove to be very daunting. Additionally, majority of their day-to-day work involves a lot of movement. One such user that the research team interacted with happened to work multiple roles, serving as the bookkeeper, truck off-loader and data entry clerk. This duality of roles lead to certain features in their applications such as real-time sales entry being mis-used unintentionally. Further, due to poor internet access, salespersons would only record the day's activities on paper and then feed them in the system at once when they completed their sales run. This bulk entry would create room for inaccuracy and further fool the system to inaccurately associate multiple sale records to a specific location.

Conducting user research is essential as it uncovers such hidden constraints and unmet user needs. User research is relatively cheap to conduct and pays off quickly compared to other design thinking methods/techniques. It is a good step for organizations without a string design culture and ensures the needs of the end-user are factored in from the start and help organizations to leverage the power of design to optimize user experience. According to a study Mckinsey Design (The Business Value of Design) involving 300 publicly listed companies over a five year period in multiple countries and industries, companies that have fully adopted design thinking consistently outperformed those who hadn't.

## 2

## *Prioritize Quality Self-Help*

Even the best-designed systems require some form of training to understand their essential functions and achieve optimal benefits. Investing in smooth and frictionless self-help options results in fewer client support calls and increases the time spent on improving existing feature sets. A common technique used on applications and websites is a guided on-boarding tours. When a user uses a feature or service for the first time, the guide is built in to guide them on how different features work. These type of a self-help feature does not need to be limited to onboarding but can be designed in a way that the user can always refer to it when they are stuck.

Providing tutorials and clear documentation such as what Google does for their product suite is another way to assist users. Absence of in-app guides could translate to overwhelmed support teams as there is no other way for the users to resolve issues. As such, developers focusing on agribusiness tooling ought to pay more attention to self-help functions.

## 3

## *Develop a Product Roadmap*

Feature improvements and new ideas come up constantly, and having a product roadmap to capture this makes it easier for incoming teams to know the history of a product. It also prevents the organization from using a reactionary approach when developing their product. Product road maps ensure continuous improvement processes and efficient integration of improvements into the workflow. They help in communicating to customers when specific issues will be handled and what to expect from the product over time. An easy tool to start with is Roman Pichler's Go Product Roadmap. It is a goal-oriented template focused on user acquisition, activation or retention. This helps focus the process on the strategic goals of an organization instead of a limited focus on the features.

## 4

## *Build Internal Design Capacity*

Design thinking has been a relatively new concept for the last decade, but is gradually gaining traction across various industries. However, many organizations still struggle to adopt the approach despite overwhelming evidence that it leads to better products. Agribusiness companies should pay more attention to building more internal design thinking capacity to leverage increase their user-centricity. To create internal capacity, such organizations can employ two different strategies. (a) Staff members can use online courses such as the one provided by Acumen and IDEO.org - Introduction to Human-Centered Design. There is a multitude of options online. (b) Where companies have short turn-around, they can work with external consultants to train in-house development teams to understand and incorporate the design process into their development flow. Both options will help staff members adopt the designer's mindset when developing and improving products.

## 5

## *Pay more attention to customer care feedback*

Customer care representatives or customer experience departments work with end-users every day, which makes them the best candidates to represent the needs of the customer. Complaints or support requests from customers are almost always filed through the customer care representatives who then forward to the relevant teams. Customer care teams are well positioned to identify key patterns in customer issues and challenges and should be empowered to document and channel these to relevant departments. While not a substitute to conducting user research, it is a great source of user feedback. Having a clear process through which customer feedback is collected and shared with the product development team and incorporated into the product roadmap will allow agribusiness companies develop better products for their customers. Higher customer satisfaction leads to higher retention and consequently more profits.

## **Conclusion**

With its ubiquitous adoption of technology, companies can no longer bank on simple application of tech as their key differentiators. Companies need to invest in customer experience as their key differentiator since customers have increasingly wider varieties, and switch over costs have drastically reduced in recent times. Agribusiness tech companies continue to trail industries like fintech in technology adoption as the competition in the agribusiness space hasn't intensified like in other sectors. This creates an opportunity for fast movers to corner the market by being user-centric. Agribusiness companies should aggressively invest in redesigning their suite of products with a strong focus on the users. As highlighted earlier happy users have higher retention rates, often make referrals to potential users, and are the biggest growth drivers for any tech-based business.



**“ You cannot understand good  
design if you don’t  
understand people  
- Dieter Rams**

**Nairobi, Kenya Office**  
ABC Place, Off Waiyaki Way  
3rd Building, 1st Floor

P.O.Box 11860-00100  
Tel. +254 20 444 1126  
Fax +254 20 444 1068

