

Enabling Mobile-IoT Driven Marketing with High Resolution Analytic Models

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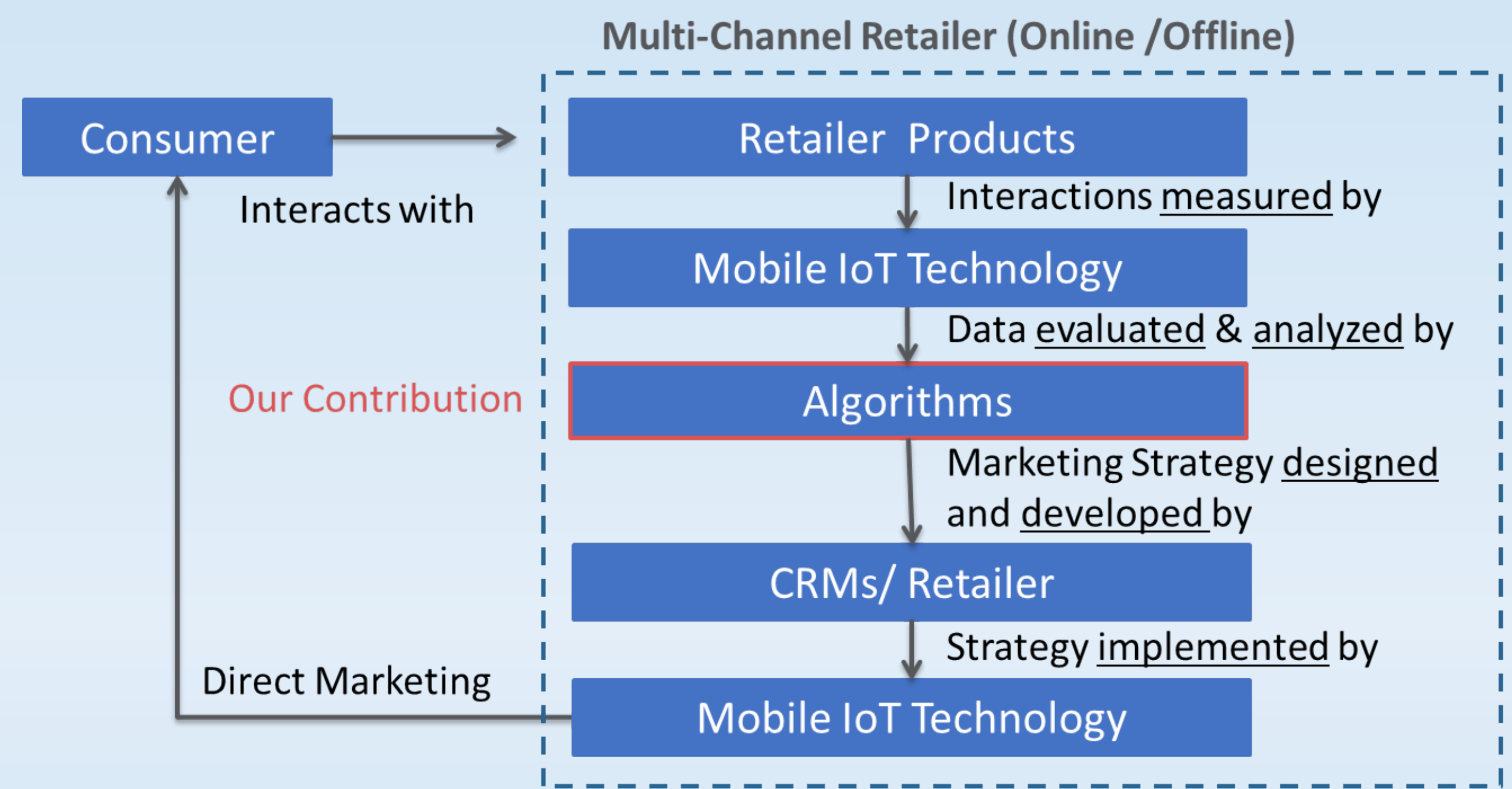
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Motivation

The ubiquity of Mobile IoT – ex. Smartphones - enables personalized and timely (i.e. “high resolution”) marketing for physical grocery retailing. This is more effective than applying the same marketing policy to all customers [1]

Analytical and methodological challenges remain in

- Identifying customer groups for personalization and for
- Evaluating the profitability of customers, within a high resolution grocery retailing marketing context [2]



Step 1: Estimate Variety Seeking of Customers

- Past research identified variety seekers as a high value group; they are most likely to respond to offers & recommendations
- Using retailer loyalty card transaction data, we derived a model for measuring variety seeking behavior based on his purchases in individual categories
- A retailer can make targeted offers and recommendations in categories where a customer seeks variety; our model also reveals after how many products would someone seek variety

Which categories to promote if a customer's variety seeking is: ...

High overall	Mixed	Low Overall
All, priority to high variety seeking	Only categories where variety seeking is high	None

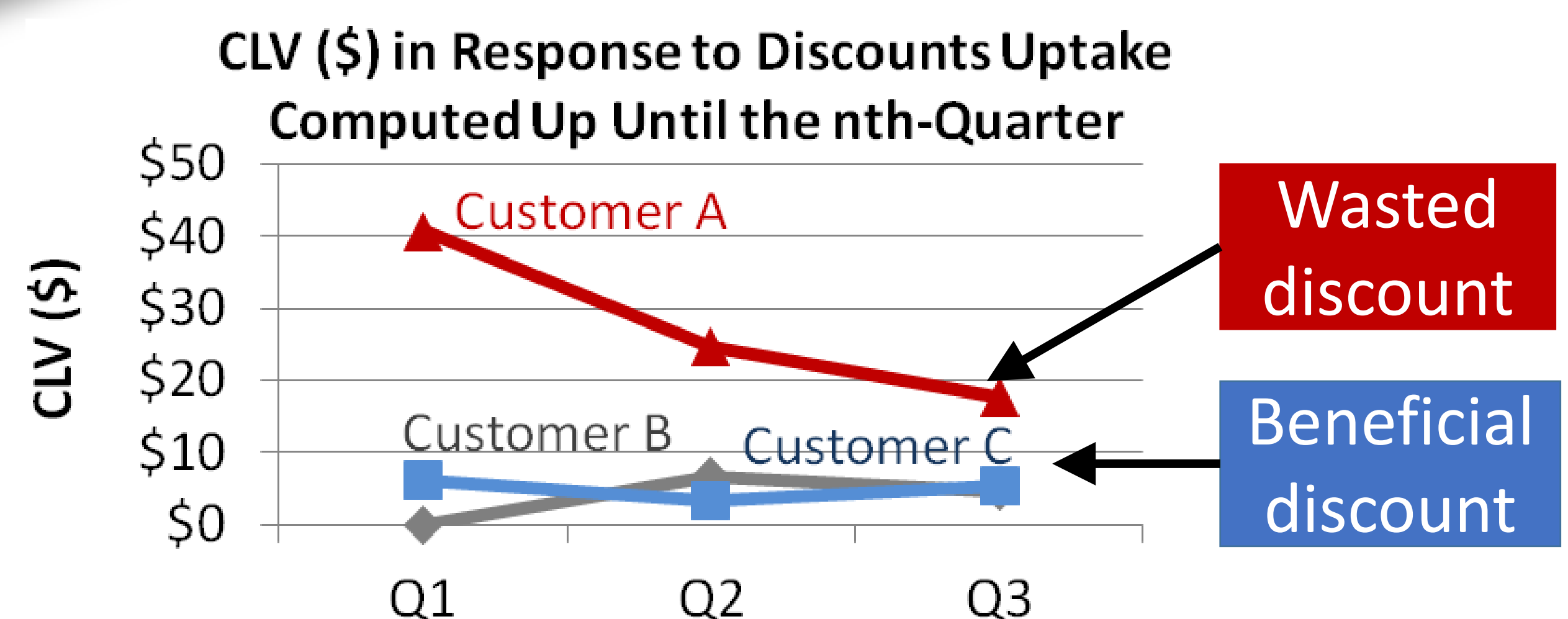
Step 2: Employ Mobile IoT Marketing

- Smartphones allow physical grocery retailers to target customers' variety seeking preferences with recommendations and offers
- Since space limited on phone, focus on select categories
- Select categories where customers seek variety



Step 3: Evaluate Results using CLV Models

- We developed a method that would allow physical retailers to evaluate the effectiveness of their marketing strategies
- The choice of customer long-term value (CLV) as the evaluation metric allows retailers to determine which customers would give the best return on their marketing investment



Conclusion

- Physical grocery retailers can now go beyond mass marketing, and make offers/recommendations in product categories of interest to individual customers via Mobile IoT
- Our contribution showed how to uncover which categories are of interest to individual customers, and provide methods for evaluating customers' future profitability at the level of product categories

Outlook

- Improved model integrating customer usage of the app, in addition to the current estimation from in-store purchases
- Field test of ideas and concepts with physical grocery retailers



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References

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- [2] Neslin, S. A., Grewal, D., Leghorn, R., Shankar, V., Teerling, M. L., Thomas, J. S., & Verhoef, P. C. (2006). Challenges and Opportunities in Multichannel Customer Management. Journal of Service Research, 9(2), 95–112