

Discussion of “The dawn of a mobile payment scheme: The case of Movii” by Carlos León

REGIONAL CONFERENCE ON PAYMENTS AND MARKET INFRASTRUCTURES

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SUMMARY

- In this article, the author studied the mobile payment scheme of Movii, the first fintech firm in Colombia that operates under a non-bank financial license for deposits and electronic payments.
- The methodological approach is **network analysis**, which is used to build, visualize and analyze the evolution of mobile payment networks from person to person, with data from the first **transfer** on November 18, 2017 to November 25, 2020.
- The complexity is related to the adoption of Movii's mobile wallet, which causes users to find new ways to use mobile payments beyond person-to-person transfers, including person-to-business and business-to-business transfers.
- In addition, the results suggest that the Covid-19 pandemic accelerated the evolution of Movii's mobile payment scheme.

REVIEW

- It is an interesting and original document. It has not been studied from the perspective of mobile wallet users.
- It is timely, because the pandemic requires the greater use of electronic means of payment such as wallets and mobile payments, contributes to the literature and financial authorities.
- The methodology applied is precise to determine the structure and behavior of the users of the mobile wallet analyzed.

DISCUSSION

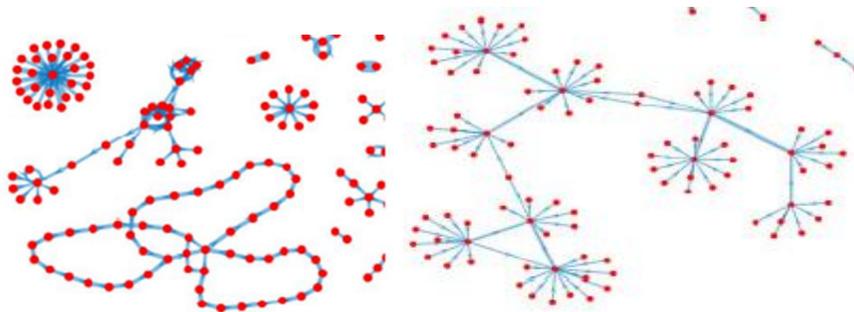
- **Complement the literature with papers about determinants for the use of mobile wallets.** This allows to understand the behavior of the users of these means of payment, as is the case of India, Example:

Chawla, et al. (2019) In India, perception factors such as ease of use, utility, security or lifestyle compatibility have a positive impact on the adoption of this new payment technology, mobile wallet. Shaw, et al. (2019) found the addiction to smartphones make people more likely to get a mobile wallet. Manikandan, et al. (2017). The ease of shopping and the credibility in a brand that allows mobile payments, also increase the acceptance of these new technologies.

- **Expand description of data of the behavior of Movii to understand its evolution:**
 - Q: Are there around 1 million Movii customers, but 178,750 users have channeled operations from November 18 2017 to November 25 2020? That means that only 18% of customers have used Movii?
 - Number of transactions, amount and monthly users could be included to evaluate its evolution, especially in 2020 during the pandemic months. It would also help to know the magnitude of the payment system analyzed.
 - The author shows that half of the transfers per Movii are equal to or less than USD 11 (median) and the maximum transaction was USD 3,433. A few transfers contribute greatly to the total value of the transfers. How did this behavior evolve in the period analyzed?

DISCUSSION

- **The author's hypothesis about the incentive that caused the government payments over Movii mobile payments could be further deepened.**
 - What percentage of the total transactions and amount correspond to transfers for government incentives? This makes it possible to evaluate whether the evolution of Movii is mainly explained only by government policy.
 - How many new users are evidenced by the effects of government transfers? How many users remained making transfers by Movii after the government payment? Otherwise, it is possible that many of them only converted it into cash once the transfer was received from the government?
 - Could you analyze the structure of the network excluding the government? To analyze the effect of wallet itself without that government incentive.
- **Methodology: Analysis of networks**
 - The author explicitly determines network topology indicators.
 - The indicators of the number of components with more than two nodes and the size of the largest component are very prominent. It is recommended to deepen the analysis of these more complex structures identified in the results or the networks with the largest number of users. In the case of star-type network structure, which are so frequent the same central nodes over time.



DISCUSSION

❖ Additional network analysis metrics

- ✓ Estimate the centrality metrics per node such as betweenness centrality, or closeness centrality, authority, etc. that help to see how important a node is in the network, and with these measures we could identify the most relevant agents (consumers or small sellers), and thus identify certain agents as essential for Movii. Is the government one of them?
- ✓ **Rendon de la Torre et al. (2016)**, analyze 80 percent of banking transactions between Users in Estonia by network topology observe their characterization. They identify the important nodes of the network and simulations of resiliency against random and targeted attacks of the nodes. Strength of a node and collective influence of nodes indicators.
- ✓ **Martinez-Jaramillo, et al. (2012)** construct a centrality indicator with a principal component analysis with the indicators of centrality betweenness, closeness centrality, eigenvector centrality, pagerank and degree of centrality to determine the most relevant financial institutions.
- ✓ Create simulations with important nodes to evaluate their impact on the network