

How does a transactional platform stay dominant?

Platform Thinking in payment cards

1. Introduction

Platforms have received growing attention over the past decades (Trabucchi & Buganza, 2023) by both practitioners and academics (Jia et al., 2021). This uptake in popularity was inspired by the enormous success of platform-based businesses (Jia et al., 2021). Think for instance about firms like Airbnb or Uber, which disrupted the markets in which they entered in a relatively short time frame (Dell’Era et al., 2021). This type of firms is generally referred to as two- (or multi-) sided platforms (Trabucchi & Buganza, 2022). More specifically, a business is considered a two-sided platform if it meets the following criteria (Evans, 2003): (1) there exists two or more separate groups of customers; (2) there are cross-side network externalities among these groups of customers; and (3) the business acts as an intermediary that is able to internalize such externalities. In other words, these types of players provide a model that matches two groups of customers in a meaningful way (Trabucchi & Buganza, 2020). A typical example is the credit card market, where players like Visa and Mastercard provide an infrastructure that simplifies the connection between the payer and the payee.

The literature on two-sided platforms is expanding rapidly (Jia et al., 2021) and is mainly focused on the characteristics of such businesses (Trabucchi & Buganza, 2020). What is in general missing, however, is an analysis of the possible evolution of this model (Trabucchi & Buganza, 2020). Therefore, the objective of our paper is to investigate how established two-sided transactional platforms can innovate their business model, by keeping applying the so-called platform thinking paradigm (Trabucchi & Buganza, 2023) to face an increasingly harsh competition – often from other platforms – and a progressively restrictive legal framework.

2. Theoretical background and relevance of the research

Rochet & Tirole in 2003 published a seminal paper on platforms, igniting the research on the topic. The authors analyze the concept of two-sided markets, which they define as markets *“characterized by the presence of two distinct sides whose ultimate benefit stems from interacting through a common platform”* (Rochet & Tirole, 2003, p. 1). In a subsequent paper, Rochet & Tirole (2006, p. 625) further formalize the definition of two- (or multi-) sided markets as *“markets in which one or several platforms enable interactions between end-users and try*

to get the two (or multiple) sides on board by appropriately charging each side". Since then, scholars in the field have proposed many other interpretations and definitions of platforms, which can be grouped into two main categories: transactional and orthogonal (Trabucchi & Buganza, 2020). Transactional platforms allow two parties to make a direct transaction (Rysman, 2009). It is the case, for instance, of credit cards, Uber and Airbnb. Conversely, orthogonal platforms do not enable a direct transaction between the two groups of customers. Rather, they leverage a critical mass on the one side (e.g. the users of Google search engine) to attract a second group of customers that wishes to reach them (e.g. the advertisers) (Trabucchi et al., 2017).

Platforms have received significant attention from scholars, who investigated various topics (Dell'Era et al., 2021). On the one hand, economists first studied the price dynamics of platforms, which differs from the one of traditional one-sided markets (Dell'Era et al., 2021; Trabucchi et al., 2017). Indeed, platforms differ in that they must define a price structure rather than a price level (Rochet & Tirole, 2003). On the other hand, scholars in the management field have focused on the characteristics and the opportunities granted by this business model as well as the competitive strategies adopted (Dell'Era et al., 2021). Moreover, the literature on two-sided platforms is mainly focused on the characteristics of these businesses, with a rather static approach (Trabucchi & Buganza, 2020). However, the growing diffusion of digital technologies has enabled the emergence of a large variety of such platforms (Trabucchi & Buganza, 2020). As a consequence, some companies that started with a two-sided transactional business model are now becoming more and more complex (Trabucchi & Buganza, 2020). This paper aims at shedding light on this evolution.

Our research relates to the one of Trabucchi & Buganza (2020), which focuses on how two-sided platforms evolve from the basic match-making mechanism to multi-sided platforms. The authors provide a framework that suggests three strategies, namely: supply (side) expansion, transactional advertising, and data trading. The first strategy involves adding new groups of players to the platform. In other words, the platform identifies a new side that may be interested in transacting with the first group of customers, i.e. the end-users (Trabucchi & Buganza, 2020). It is the case of, for instance, Airbnb, which in 2017 expanded its business by adding experience providers to its platform and connecting them with travelers (Trabucchi & Buganza, 2020). The second strategy – transactional advertising – consists in offering to the second side (i.e. the suppliers) an advertising service within the platform, therefore expanding towards a orthogonal mechanism (Trabucchi & Buganza, 2020). Finally, platforms use a data

trading strategy when they sell the end-users' data to provide services to a new group of customers that are not part of the original platform (Trabucchi & Buganza, 2020).

Our paper builds on this framework with the goal of providing an in-depth analysis of how an established transactional platform can evolve and innovate, as suggested by the authors themselves (Trabucchi & Buganza, 2020).

3. Research design and methods

As mentioned above, the objective of the paper is to analyze how established transactional platforms innovate their business model, by continuing to apply the so-called platform thinking paradigm to face increasing competition and a changeable regulatory framework.

Since existing contributions in the field are scarce, we adopt an exploratory research design that enables us to acquire a better understanding of this phenomenon (Eisenhardt & Graebner, 2007). For this reason, we use a multiple case study methodology. Also, since our goal is to investigate the strategy of incumbents, we decided to focus our analysis on the payment industry, which is one of the most typical examples of two-sided platforms. More specifically, we analyze the strategy of Visa and Mastercard, which are two of the major players in the industry. Indeed, according to The Nilson Report issue 1241 (2023), in 2022 Visa and Mastercard reported, respectively, 11,668 billion and 6,568 billion US dollars in payment transactions. To give an element of comparison, American Express reported 1,540 billion US dollar.

We start by analyzing secondary sources, that informed us of the history of these two companies as well as on the evolution of the industry and the strategies adopted. Crucially, this understanding of the landscape allowed us to better design the interview protocol (see Appendix A and B for more details).

4. Payment card platform

Visa Inc. was founded in 1958, when Bank of America (BoFA) launched its first consumer credit card program in the US, called BankAmericard. To increase its reach, the program was soon extended to other financial institutions. Eventually, in 1970, BoFA decided to give up its direct control over BankAmericard to form a cooperative with such financial institutions, which took over the management. Finally, in 1976 BankAmericard was renamed Visa.

Mastercard followed a similar trajectory. The company was founded in 1966 as Interbank Card Association, an association of banks which started its own card program called "Master Charge: The Interbank Card". In 1979, the program was renamed MasterCard.

Since its foundation, the objective of Visa is to facilitate payments between consumers and businesses (Visa Inc., 2023). In a same way, Mastercard’s purpose is to make transactions safe, simple, smart and accessible¹. They do so by providing a platform based on the so-called “four-party” model, shown in Figure 1 (Mastercard Inc., 2023; Rysman & Wright, 2014; Visa Inc., 2023). In this model, the consumer purchases goods and/or services from a merchant and pays using a card that was provided by an issuer (e.g. a bank). Thanks to a card reader, the transaction data are presented to an acquirer (i.e. a Payment Service Provider that supports the acceptance of Mastercard or Visa cards). The acquirer passes on the data of the transaction to the card platform which in turn communicates with the issuer to check the consumer’s credit line or account balance and to get the authorization for the payment. If the transaction is authorized, the issuer transfers the funds to the acquirer, which in turn credits the merchant’s account.

Note that both Mastercard and Visa are not financial institutions, they do not issue the cards nor provide a credit line (Mastercard Inc., 2023; Visa Inc., 2023). Rather, they enable the issuer and the acquirer to communicate and, as a consequence, to facilitate the transaction between the consumer and the merchant. This is what makes Mastercard and Visa one of the most typical examples of a two-sided transactional platform (Dell’Era et al., 2021; Rysman & Wright, 2014; Trabucchi & Buganza, 2020).

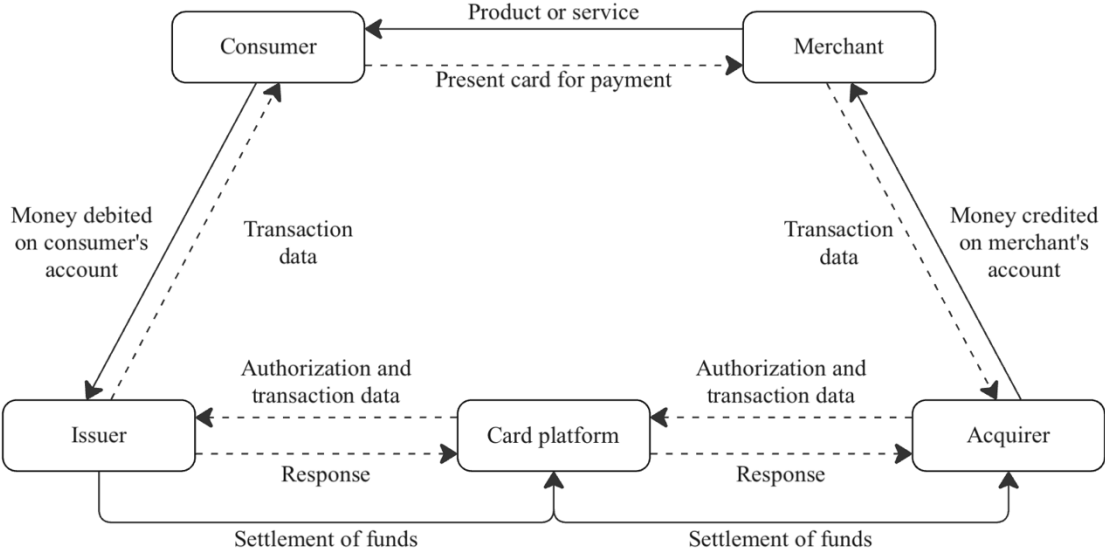


Figure 1 – Four-party model

¹ <https://www.mastercard.us/en-us/vision/who-we-are.html> accessed June 20th, 2024.

4.1 The strategy and evolution of Visa

Visa's end goal is to become a network of networks, i.e. *"to offer a single connection point for facilitating payment transactions to multiple endpoints through various form factors"* (Visa Inc., 2023, p. 4). Its strategy is composed of three main areas (Visa Inc., 2023): (1) consumer payments, (2) new flows, and (3) value added services.

"Consumer payments" include transactions made by consumers using their Visa card, be it a credit, debit or prepaid card. These are the core products of Visa and are all based on the four-party model. One of the first strategies that was implemented by Visa was to extend the four-party model to include other type of players beyond issuing and acquiring banks, namely digital banks, digital wallets, fintech companies, but also government and Non-Governmental Organizations (NGOs) (Visa Inc., 2023). This strategy could fall under the "supply-side expansion" category because it entails adding new players to its existing two-sided platform.

"New flows" is a relatively new approach aimed at creating new money movement through card, but also non-card flows for consumers, businesses and government (Visa Inc., 2023). Crucially, products in this category are not limited to cards, meaning that Visa is aiming at going beyond its core four-party model. An example of a product in this category is Visa Direct, which enables the transfer of funds to cards, deposit accounts and digital wallets (Visa Inc., 2023). It can be used for a variety of use cases, spanning from peer-to-peer payments to account-to-account transfers and even government payout to individuals (Visa Inc., 2023). These types of products do not completely rely on Visa's traditional platform and, as a consequence, it is difficult to assess in which category of the framework proposed by Trabucchi & Buganza (2020) they belong without a more in-depth analysis.

Additionally, "value added services" are often viewed as a method to broaden revenue sources. A very interesting service in this area is open banking. More specifically, an open banking platform enable innovative services such as account verification and personal finance management, but also, payment initiation services, which means account-to-account payments that, once again, are not based on Visa traditional four-party model. Also, in 2022, Visa acquired Tink AB, an open banking platform, which signals the intention to deliver this type of products as well. Once again, it is not possible to establish the type of strategy by relying only on secondary sources.

To make things even more complicated, in its annual report Visa stated *"the key component of our network of networks strategy is interoperability. We are opening up our network and increasingly using other networks to reach accounts we could not otherwise reach and enabling*

new types of money movement. Visa B2B Connect, Visa Direct, and Visa+ are examples of our strategy” (Visa Inc., 2023, p. 12).

From this overview, based on the analysis of secondary sources, it is clear that the strategy of Visa is complex and is changing its traditional two-sided platform model. Also, the strategy seems to go beyond the three categories identified by Trabucchi & Buganza (2020). Therefore, a more in-depth analysis is very much needed. For this reason, we designed an interview protocol that will allow us to shed light on the evolution strategy adopted by Visa and on its impact on the structure of its platform. See Appendix A for the detailed protocol.

4.2 The strategy and evolution of Mastercard

Mastercard’s strategy encompasses three main priorities (Mastercard Inc., 2023): (1) payment products expansion, (2) extension of the services provided, and (3) embracing of new networks.

Mastercard’s core payment products include consumer payment cards and the so-called “new payment flows”. Similarly to Visa, Mastercard new payment flows include solutions that do not rely on its traditional four-party model, but may use other payment instruments, such as bank accounts transfers which typically use other rails. For instance, Mastercard Send is a service that allows consumers to send money to other peers within a partner digital messaging and payment platform (Mastercard Inc., 2023). Also, the service enables governments and non-profits to distribute economic and social assistance as well as B2C transactions (Mastercard Inc., 2023). Another example is Mastercard Cross-Border Services, which uses “*a distribution network with a single point of access that allows financial institutions, fintechs and digital partners to send and receive money globally through multiple channels, including bank accounts, mobile wallets, cards and cash payouts*” (Mastercard Inc., 2023, p. 13). Also, Mastercard has implemented real-time payments infrastructures that allows account-to-account transfers for consumers, businesses, governments and merchants (Mastercard Inc., 2023).

Value added services include various services that serve multiple objectives, such as enhancing trust in the ecosystem, providing data-based insights to support customers’ decision-making process, and enable customers to improve the engagement of their own end users (Mastercard Inc., 2023).

Finally, the company is also embracing new networks. For example, it has entered the market of open banking services. Indeed, in 2023 it partnered with financial institutions to provide an open banking service that uses APIs to enable consumer bill payments (Mastercard Inc., 2023).

Once again, the strategy of Mastercard is complex and difficult to analyze by relying only on secondary sources. Thus, we designed an interview protocol to collect direct data and conduct an in-depth analysis. See Appendix B for details.

5. Expected contributions

The goal of the paper is to highlight the strategies that established transactional platforms can use to foster innovation, to face tougher and tougher competition and a more and more restrictive regulatory framework.

The preliminary analysis of secondary sources highlighted a far from trivial context. It is clear that the strategies of Visa and Mastercard are changing their traditional two-sided transactional platform business model, making it evolving into something more articulated and complex. Our hypothesis is that these players are moving from a two-sided platform, where they connect two groups of players using their traditional card-based network, to a “platform gemini” strategy (Trabucchi & Baganza, 2023), where they create new platforms for different use cases.

From a theoretical perspective, the paper will contribute to the literature on two-sided platforms by providing evidence on the evolution of incumbents based on this business model and by building on the literature gaps previously identified by Trabucchi & Baganza (2020).

From a managerial perspective, the research aims at providing entrepreneurs and managers with new possible ways to innovate their business model and their offer.

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Appendix A

Questions for informants within Visa Inc.

1. Can you describe the three strategic areas, namely consumer payments, new flows and value-added services?
2. How did “consumer payments” evolve over time?
3. Do consumer payments rely solely on the four-party model? Are there any other types of money transfer in this category?
4. Can you describe how does Visa Direct work? How are the funds transferred in each use case? Does it rely solely on the four-party model? Or does it use a different network?
5. Can you describe how does Visa B2B Connect work?
6. Can you describe how do Visa Cross-Border Solutions work?
7. Why did Visa decide to introduce “new flows”? Which are the strategic reasons behind this choice?
8. Moving to value added services, which are the opportunities provided by open banking? Why did Visa decide to enter this market?
9. Why is open banking considered a value-added service instead of a new flow?
10. How does Visa offer Buy Now Pay Later solutions?

11. Of the three areas, which is the most important for Visa at the moment? On which one of them is Visa focusing its effort the most?
12. How did the changing EU regulatory framework impact the strategy of Visa?

Appendix B

Questions for informants within Mastercard Inc.

1. Can you describe the three strategic priorities of Mastercard?
2. How did consumer payments evolve over time?
3. Do consumer payments rely solely on the four-party model? Are there any other types of money transfer in this category?
4. Can you describe how does Mastercard Send work?
5. Can you describe how does Mastercard Cross-Border work?
6. Can you describe how do real-time payments work? In which countries is the service already available?
7. Why did Mastercard decide to introduce “new payment flows”? Which are the strategic reasons behind this choice?
8. Moving to new networks, which are the opportunities provided by open banking? Why did Mastercard decide to enter this market?
9. Are you planning to offer Buy Now Pay Later solutions?
10. Of the three areas, which is the most important for Mastercard at the moment? On which product is Mastercard focusing its effort the most?
11. How did the changing EU regulatory framework impact the strategy of Mastercard?