Benefits of the Retail Payments Card Market: Evidence from Russian Merchants

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Abstract
This article evaluates merchants' benefits resulting from the participation in the retail payments market. Using surveys and proprietary data to obtain a representative sample of 800 Russian merchants, the article finds significant, robust evidence in favor of positive merchants' benefits. Findings imply that unbalanced intervention may be detrimental to the agents' welfare and propose a mechanism for ex-ante evaluation of the effect of shocks and interventions

Key Words: Retail payments; payment cards; benefits; merchants’ acceptance; financial services. Futures 
JEL Classification: G21, D53, E42, L14, O52
1. Introduction

Payment cards are integral to the modern and innovative retail and finance ecosystems that form a basis for sustainable economic development especially at the high growth and emerging markets. Practitioners and ecosystem stakeholders confirm the increasing benefits associated with the participation in the retail payments market. The main critique to the existing market conditions, however, is based on the argument that some groups of agents exploit benefits from the participation in the market at the expense of other agents. Main advocates of these arguments have been the merchants, which incur direct costs in terms of merchant fee with the decision to accept payment cards. This resulted in proposals to conduct regulatory and balancing interventions to the market equilibrium. None of such proposals has proved to be Pareto efficient yet (Weiner & Wright, 2005), which may be explained by the inability of both market participants and regulators to empirically evaluate current levels of benefits from the participation in the market, and the consequences of shocks and interventions for these benefits.

This article aims to contribute to two rising strands of literature. The first one concerns the formation of the retail payments market equilibrium (Bedre-Defolie & Calvano, 2013; Rochet & Tirole, 2002; Weiner & Wright, 2005). This literature so far has not provided any quantitative estimates of the benefits for stakeholders, claiming this value to be theoretical rather than empirical. This research aims to fill this gap by estimating the merchants’ benefits at the Russian retail payments market.

To the best of our knowledge, only Krivosheya and Korolev (2016) proposed the quantitative estimates for the cardholders’ benefits associated with the payment and cardholding decisions. This study, however, investigates the benefits of merchants that, unlike cardholders, make only one decision in regard to the participation in the retail payments market, namely, the decision to accept cards. In this respect this research is complementary to the article by Krivosheya and Korolev (2016) and extends the results found by authors to the new market segment, which will deepen the understanding of the general retail payments market equilibrium.

Additionally, this research contributes to the growing empirical literature on the emerging retail payments markets (e.g., Reinartz et al., 2011) by analyzing current market situation and identifying the merchant-related stylized facts of the retail payments market in Russia.

2. Literature Review

Merchants’ benefits are integral to the market equilibrium formation (Baxter, 1983; Rochet & Tirole, 2002; Bedre-Defolie & Calvano, 2013). Combined with the benefits of the cardholders and other participants they determine the level of equilibrium interchange fees to balance the costs and benefits among the two sides of the retail payments market (Baxter,
1983). Sources of benefits include the increased security, faster payments processing, increased average check as well as network externalities (Baxter, 1983; Bedre-Defolie & Calvano, 2013).

3. Methodology

3.1 Sample and Estimation

The empirical analysis of the benefits draws a representative sample of 800 traditional (offline) merchants. Face-to-face surveys conducted in 2013-2014 included all Russian regions and quotas for the shop types to ensure sample representativeness for the Russian retail payments market.

3.2 Benefit Evaluation Method

Gross benefits are the sum of net benefits and (negative) loyalty program reward payments. The questionnaire includes the question about the total costs of acquiring services for the merchants. This question invited the merchants to evaluate not only the direct costs associated with the merchant discount fee but also the indirect costs such as forgone transactions volume and increased staff training costs. The amount of self-reported costs corresponds to the actual willingness to pay for the acquiring services by the merchant. Due to the duality of costs and benefits (Luenberger, 1992), this also identifies the level of total merchant’s benefits associated with the decision to accept cards. Dividing this value by the total merchant’s transactions volume allows getting the benefits in percentage terms. This study uses benefits in terms of Russian Rubles that is why the obtained value of benefits is multiplied by the average check value.

This research further separates the benefits into two types: opportunity benefits and direct benefits. Opportunity benefits are defined as the percentage of transaction volume that would be forgone if the merchant doesn’t accept payment cards. Direct benefits are simply the difference between the total benefits and opportunity benefits. Direct benefits represent all the benefits that are attributed to the acceptance decision (e.g., improved security, increased speed of transactions, network externalities, increases in average check) net of costs of such decision (e.g., increased staff training costs, possible short queue line length increase). Significance of obtained benefits is addressed using the Student t-test, which is applicable due to the law of large numbers. This study further shows the factors (e.g., merchant type, competition severity, company's age, etc.) affecting the value of merchants' benefits using the regression analysis.

4. Results and Discussion

This study finds significant robust evidence in favor of positive merchants’ benefit existence as a result of decision to accept payment cards. In particular, average total benefit per transaction is 16.34% or 89.91 rubles, while average opportunity benefit is about 14.5%
or 79.8 rubles per transaction. All benefits are statistically different from zero as suggested by Student’s t-test.

5. Conclusions and Recommendations

The results in this study highlight the existence of the positive merchants’ benefits on the retail payments market. Findings imply that the benefits of the participation in the retail payments are not limited to the payment systems contrary to the existing belief (Weiner & Wright, 2005). Besides, the method of empirical benefit evaluation allows approaching the regulatory initiatives ex-ante in order not to disturb fragile equilibrium. Empirical evaluation of the benefits is a step towards the introduction of fair pricing of the payment instruments, implementation of effective policies and identification of socially optimal market equilibrium.

References


