COMPLEMENTARY PAYMENT SYSTEMS

Tuesday, 9th of February 2021

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INTRODUCTION

DIGIPAY 4 GROWTH: European Project (2014)

MAIN GOAL: To analyse the way of introducing several complementary payment systems in Catalonia (in three pilots).

The differential element of these three pilots was the crucial participation of a public administration in the development of such complementary payment systems.

The unique successful pilot was introduced in Santa Coloma de Gramenet. And the name of the involved local money is Grama.
WHAT A COMPLEMENTARY PAYMENT SYSTEM IS?

A CPS is a monetary system where money has **one main function**: to work as a medium of exchange. That is, money is not useful to accumulate wealth and, for this reason, when possessing local money, the best option is to use it in transactions (instead of euros).

The main objective is to achieve the fast and smooth circulation of money with a double goal:

1. To boost local consumption, local trade, and local job creation
2. To increase local velocity of circulation of money

In these scenarios, fostering local development becomes the first goal in the political agenda.
WHAT A COMPLEMENTARY PAYMENT SYSTEM IS?

GOALS:

1) Increase the local multiplier effect of money

2) Prevent leakage of money outside the territory considered

3) Foster local consumption

4) Increase local job creation
WHAT A COMPLEMENTARY PAYMENT SYSTEM IS?

PUBLIC SECTOR (G)

MONEY IN
TRANSACTIONS TYPOLOGY:

1) B2B
2) B2C
3) B2E
4) C2B
5) C2C
6) C2E
7) E2B
8) ERC
9) ...
SOME KPIs IN #gramamoneda case:
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<td>207</td>
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I am trying to apply statistical analysis in three different moments of time.

1) In the initial steps (ex-ante analysis), when identifying the model to follow and the set of most relevant parameters to introduce in it. In this sense, it becomes crucial to define the CPS main characteristics. There are a lot of decisions to take, depending on the characteristics of the system and, of course, of the main goals to achieve. Moreover, in this ex-ante analysis, it becomes crucial to identify the key partners that should be convinced to enter in the CPS (considering both economic and social facts).
AND...WHICH IS MY CONTRIBUTION? (II)

2) During the development of the CPS. In this sense, we present a traceability analysis every year, to identify potential fails of the system and, additionally, to propose improvement areas. Continuous analysis. Set of key performance indicators (KPI).
3) And, finally, the ex-post analysis, with the aim of comparing results and evaluating the effectiveness of the CPS in terms of local trade, local consumption, local employment creation and so on.

This field is dominated by sociologists, anthropologists, political scientists, teachers, NGOs, neighbourhood associations, platforms for the defence of the circular economy, etc. and the accuracy level that it is applied in justifying the viability of certain models is very limited.

... And this is a clear advantage for econometricians
WHICH KIND OF STATISTICAL METHODS CAN WE USE IN THIS TYPE OF ANALYSIS?

- **Basic data treatment.** In this case the unique difficulty is the huge amount of information to process.

- **Regression analysis.** With the aim of establishing complementary relationships within variables, for example, when evaluating the scope of the local multiplier.

- **Time series analysis.** With the aim of forecasting future behavioural patterns.

- **Survival analysis.** To exploit the possibility of calculating some probabilities inside the system.
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Any question?
Thank you very much for your attention!