Theresa Hager, Johanna Rath, Luise Wimmler:

"Work or Die? How Wage dependency determines the production process"

Abstract

This paper deals with the rise of the firm in market societies and the fact, that the introduction of an outside option provides an alternative to wage dependency and is thus decisive for the production process. We examine the existing literature on Transaction Costs Economics in a Coasian tradition as well as a Marxian point of view on the topic. The two contrasting angles are based on the different focus on the authors of the two currents, namely transaction costs and power relation between workers and capitalists.

We go on by taking a deep look into an experiment done by Bartling et al. (2012) that checks for the emergence of sales contracts versus employment contracts, the latter referring to the emergence of an employer-employee relationship, thus the emergence of a firm. In this experiment, an outside option is included, which on the one hand influences the power relationship of the employer and employee. On the other hand, the amount of this outside option is also related to the amount of transaction costs needed to insure a profitable level of production. We state a model by Bowles (1985) to show how labour effort and transaction costs, as e.g. surveillance of employees are related.

We conclude that the existence and the amount of an outside option is a crucial feature to explain wage dependency and thus the production process. In situations in which the outside is well developed the existence of firms is best describe by the transaction cost motive. On the other hand, when the outside option is poorly developed, power relations determine the production process as Marglin proposes. Nevertheless, the outside option has an influence on both, labour effort and transaction costs. We also state some further points of interest for future research.

Introduction

> *"Indeed, even the firm itself, a central economic institution under capitalism, plays no essential role in models of the competitive economy; it is merely a convenient abstraction for the household in its role as a producer and does nothing that households could not equally well do for themselves."* (Marglin, 1974, p. 65)

In this quote, Marglin is pointing to the striking fact that in traditional economic theory the role of the firm and therefore the production process plays no central role. The same fact is emphasised by Paul Samuelson:

> *"Remember that in a perfectly competitive market, it really doesn't matter who hires whom: so have labor hire »capital«"*. (Samuelson, 1957, p. 894).

Obviously, the existence of firms as economic entities cannot be explained by the prevailing economic theory. Nevertheless, production in a firm structure is one of the main characteristics of modern day capitalism and therefore shapes our understanding of capitalistic production. Therefore, a critical investigation of the mechanisms determining capitalistic production is necessary to fill this hole in the prevailing economic theory. As this is not a very new insight, there are several authors dealing explicitly with the production process in an economy[1] and thus contradicting Samuelson's remark that the specific form of the production process does not matter.

In the following chapters, we want to take a deeper look into the characteristics of the capitalistic production process, in which the capital owner is the residual claimant and the boss. Motivated by a paper written by Bartling, Fehr and Schmidt (2012), called *"Use and Abuse of Authority: A Behavioural Foundation of the Employment Relation"* in which they conduct an experiment to explore the importance of the employment relationship, we want to explore the importance of the so-called outside option for the system of production. The outside option is some kind of alternative to survive without entering an employment relation. By evaluating the role of the outside option for the production process, the question arised, whether the outside option is decisive for the existence of a firm? And if so, what are the mechanisms behind it?

In order to assess this question there is the need for exploring existing literature on the theory of the firm. In economic theory, there are two main currents dealing with the theory of the firm. The first follows the ideas of Ronald Coase's 1937 Paper *"The Nature of the Firm"* in which he emphasised the role of transaction costs for production. This current, in the following referred to as the *Coasian view*, sees transaction costs as the determining factor for the emergence and survival of the firm as an economic entity. The second current principally follows the ideas of Marx, who emphasised the role of power and class conflict in economics. In this tradition, Stephen Marglin (1974) wrote the most influential work regarding the theory of the firm. For emphasising the role of the outside option in the production process, we refer to these two currents and their main insights. Section 1 is dedicated to a comparison of these two views.

In section 2, we provide a detailed summary of the experiment of Bartling et al. (2012), which motivated our work. It is shown that their experimental outcomes are strongly influenced by the constructed outside option, without the authors explicitly telling so. With their experiment, evidence is given regarding the emergence of employment contracts and thus the emergence of a firm structure.

Section 3 provides an analytical approach towards an explanation of the role of the outside option in the production process. Following the work of Bowles (1985), it is shown that when explicitly considering wage dependency (and thus the outside option), power issues become crucial in the explanation of the emergence of the firm structure of production. Relating to the prevailing currents of the theory of the firm, it is argued that the outside option is indeed decisive for the production process: In situations in which the outside option is well developed the existence of firms is best described by the transaction cost motive as in Coase (1937). On the other hand, when the outside option is poorly developed, power relations determine the production process as Marglin (1974) proposes.

Section 4 concludes our observations and gives an outlook on potential future research.

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[1] These include for example economists in the classical or the Marxian tradition. Compare for example Kurz (2013, pp. 24-28 and 44-51).