

History of Control

An explorative Study on Control in pre-industrialised Austria in 1850 - 1920

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Introduction to control

Internal Control is defined by American Institute of Certified Public Accountants as a process affected by an activity's board of directors, management or other personnel – designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- a) Reliability of financial reporting
- b) Effectiveness and efficiency of operations; and
- c) Compliance with applicable laws and regulations (AICPA, 1997).

Control in Management History

Since the beginning of Management, Control has been considered as crucial for success. The first approach to modern Management, the Classical Management Movement, arose between 1885 and 1940 and originated in the beginning of the industrialisation Process. With the separation of the new way of production in opposition to the handicraft system industrialisation created the need for efficient planning, organizing, influencing and controlling of all work activities (Pindur, Rogers & Kim, 1995). James Watt and Matthew Robinson Boulton, owners of the Soho Engineering Foundry in Great Britain established advanced control systems that enabled them to calculate costs and earnings for each manufactured machine.

Henry Varnum Poor first introduced a control system at a railroad company. Due to the rising complexity of the operation the number of fatal accidents arose, which resulted in the destruction of assets and a decline in trust by the customers. His system included well defined communication lines and held every individual clearly accountable (Daft, 1988).

Henri Fayol, founder of the “systematic management theory” demanded in his Managerial section efficient planning, organization, command, coordination and control (Ivanchevich, Lorenzi & Skinner, 1994). Major improvement to the design of control system had been added by Max Weber by systematically dividing labour and making each office accountable to the next higher level (Weber, 1947).

In Germany the first scientific approaches to that topic appeared after WW II mainly by Erich Schneider (Schneider, 1947) and Erich Gutenberg (Gutenberg, 1951).

The control system and the Mode of Production

In the same way as accounting is influenced, the design of the control system in use is directly related to the Mode of Production (MOP) and culture (Taylor, 1979; Burchell, 1980; Seneviratne, 1997; Wickramasinghe & Hopper, 2005). Traditional cultures and non-capitalist MOPs lead to systems as feudalism, where control systems in the capitalist understanding do not exist. Control systems under state capitalism may differ from those in market capitalism. Both understand control systems as purposeful, effective and unproblematic (Hopper, Storey & Wilmott, 1987).

The Mode of Production in pre-industrialized Austria

Before the reforms of the empress Maria Theresia, the MOP in Austria can be seen widely as feudal. The basic mean of production, land, is owned by a small group of people who permit family units to exploit the land production (Taylor, 1979). The production volumes are determined by the level of self-satisfaction of the families.

The only form of control is social control in shared religious or social beliefs in consistency with feudal political order (Wickramasinghe, 1996).

Due to the enormous spending for the court together with the disbursements caused by the ongoing military activity against Prussia and others led to deep going reforms. For internal affairs Maria Theresia and her son Joseph II were advised by the cameralists *Justi* and *von Sonnenfels*. Their aim was to raise productivity of all parts of society as well as landscape (*Industriösität der Landschaft*). For this purpose e.g. educated teachers wandered through the rural areas to teach how to best raise efficiency in agriculture. Unproductive members of society had been placed into asylums. This accumulation of labour led to the settlement of manufacturers, which exploited the inhabitants under protection of the state. Natural resources as well as the availability of energy (e.g. rivers) were centres of attraction. There a type of pre-industrialisation, the so called proto-industrialisation began. This MOP was made possible because of the decline of the feudal system. In opposition to the crafts the proto-industrialisation was focused on over regional markets, created demand for labour in rural areas and led to a raise in productivity in agriculture. Proto-Industrialisation participated to the growth of population, accumulated earnings that later had been used to invest in industrialised forms of production and trained merchants whose experience and willingness to take risk enabled industrialization. It also was the reason for commercialisation of agriculture that allowed urbanisation, a major factor for industrialisation (Mendels, 1982).

The rural society had been divided into the farmers and the rural underclass. The last group provided the basis for the Proto-

Industrialisation (Kriedte, Medick & Schlumbohm, 1977).

Research

Most Research had been focused on the development of external auditing or internal auditing activities in state-owned companies or agencies. After WW II most of the research efforts were focused on the emergence of control in anglo-american countries as Germany and Austria faced a major lag of knowledge. With the expanded business operating area and the rising complexity of operations the nobility or the owner of the enterprise were not in the position to exercise control all by them self. But these beginnings of control had never been investigated in Germany or Austria (Vahrs, 1990), as the scientific approach to this topic started not longer than 50 years ago.

The acceptance of the control system of the Anglo-American culture led to discontinuities and problems with adoption. Even nowadays developments that originate from the United States of America are not adoptable or need adoption in Austria, as be seen by the introduction of the Audit Committee, demanded by the Sarbanes-Oxley-Act of 2002.

Research Methodology

On basis of case studies the author wants to theorize on control practises to raise efficiency in pre-industrialised Austrian Enterprises in the period of 1850 – 1920. Case studies provide perfect methodology for holistic, in-depth investigation (Feagin, Orum & Sjoberg, 1991) and allow multi-perspectival analyses. This enables the author not just to do research from the viewpoint of the “elite” but to give a voice to the powerless (Feagin, Orum & Sjoberg, 1991).