BILATERAL IMPACT BETWEEN ACCOUNTING AND RELIGION ON THE EXAMPLE OF THE INFLUENCE ON THE SUBJECT LITERATURE

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Abstract:

Purpose: Modern scientific research allows identifying many factors that have influenced the development of accounting over the centuries. Religion is one of many factors creating the current shape of the accounting system. However, the relationship between these two areas is not one-sided, the accounting system also influenced the shape of religious (especially religious texts), in particular the Bible. In the Bible, fragments were developed using the concepts used in the accounting system, especially regarding rules of keeping accounts, internal control and budgeting.

On the other hand, religion over the years has significantly influenced the formation of the accounting system. The common example is the area of shaping moral foundations that are the basis of some practices and accounting principles. However, another specific area of influence is shaping the form of some studies in the field of accounting. The above thesis was presented on the example of selected nineteenth-century textbooks from accounting, which authors gave to their works a form similar to a catechism, which may be explained by two factors:
- acquaint readers with the form of catechism,
- emphasizing the meaning of the content.

Design/methodology/approach: The aim of the article is to present the bilateral impact of accounting and religion on example of influences on the literature of both fields. Achieving the main goal required prior realization of specific objectives, including finding traces of accounting in religious texts and examples of the influence of religion on the accounting system. The assumed assumptions of the article determined the structure of the article, so in the first part were shown fragments of the Bible containing activities which are currently characteristic for accounting system. Next, examples of the influence of religion on the accounting system, with particular reference to the use of forms characteristic of religious texts in the 19th century book-keeping textbooks were shown.

In the article was used critical analysis of sources and comparative analysis using the elements of inductive reasoning.

Keywords: accounting determinants, accounting impact on the bible, impact of religious concepts on accounting

INTRODUCTION

The shape of the modern accounting system is a derivative of all the factors that have influenced its development over the years. The stimuli affecting the directions of accounting development are often difficult to identify unequivocally, due to the large span of their sources of origin (Łazarowicz 2010, pp. 369-370). One of the determinants...
affecting the accounting system is religion, which influenced both the conceptual basis of accounting, and the form of didactic studies, by constituting a legitimizing factor. In addition, there is feedback between religion and accounting because the accounting concepts also determined the content of religious texts.

The aim of this study was to present the bilateral interaction between accounting and religion on the example of shaping the content and form of texts from these two areas.

The article was divided into three parts preceded by an introduction and concluded with a summary. At the beginning, the set of factors shaping the development of accounting over the years, including the religious stimulus were presented. The next item shows the influence of accounting theory on the text of the Bible. The third part presents and discusses examples of impact of religious concepts on the form of accounting studies.

The research used the method of literature analysis, the critical-comparative method and inductive reasoning.

1. IDENTIFICATION OF FACTORS DETERMINING THE DEVELOPMENT OF THE ACCOUNTING SYSTEM

As current research indicates, the beginnings of accounting development can be sought not during the turn of the Middle Ages and the Renaissance, but even in the beginnings of the economic functioning of man. According to researchers (Dobija 1996, p. 8), the elements of pre-accounting can be traced back to the prehistoric period, where there were entries on various types of materials fulfilling the functions attributed to modern accounting.

Such a long period of accounting development results in large number of factors identified as the source of the development of the accounting system. The scientific studies of the area list the following ones as the most frequent determinants for the evolution of accounting (Łazarowicz 2010, pp. 369-370, Adamek 2011, pp. 128-129, Adamek 2012, pp. 10-11, Kurek and Zielińska 2006, pp. 31-32; Ashraf and Ghanib 2005, pp. 176-198, Napier 2006, pp. 328-352):

- The art of writing,
- Arithmetic,
- Money,
- Credit,
- Trade,
- Capital,
- Companies,
- Agency,
- Culture,
- Ideologies,
- Economic crises,
- Political systems,
- Tax regimes,
- Cross-border investments,
- Professional organizations and professionalization of the accounting profession,
- Privatization,
- International economic organizations,
• Education in accounting,
• Harmonization of accounting regulations and principles,
• Information technology,
• Economic risk.

As it was noted, some of the above factors stimulated the development of accounting already in prehistoric times. The invention of writing, arithmetic or various forms of money were among the first factors that allowed the development of accounting. However, over the years, new factors have begun to stimulate changes in the accounting system that resulted from economic, social and technological development (Jastrzębowski 2015, p. 36).

It should be emphasized that the nature of the impact is often bilateral, as a result of which a given factor not only causes changes in the accounting system, but is also stimulated and shaped by it. One of the examples of mutual influence are the relations between accounting and religion, ideological and religious factors that constituted the determinant of accounting development and were shaped by it.

Feedback between religion and accounting can also be considered at the level of texts. This work will present traces of the accounting system in the Bible and the impact of the concept of Judaeo-Christian ideology on the form of accounting studies.

2. THE IMPACT OF ACCOUNTING ON THE BIBLE

The Bible is a collection of books, sacred for Jews and Christians, and describing their moral and belief systems in a comprehensive way. However, as presented in his study by T. Sedláček (2012, pp. 57-104 and 145-184), this work also provides a rich source of information about economic processes in antiquity.

The scientific literature contains many studies showing traces of economic and ethical theories and mechanisms in the Bible. An example from the beginning of the 20th century is the work of W. Sombart (1911, pp. 225-292), demonstrating the influence of Jewish culture on the development of capitalism or modern financial practices based, among other, on proofs from the books of the Bible and the Talmud. Another confirmation of the interest of the research community in this subject is the study by M. Weber (1930, pp. 53-125), in which the author presented the Christian (and especially Protestant) roots of capitalism, also based on the analysis of the Bible. Also today, scientists analyze economic problems by using biblical texts (Fel and Zdun 2014, pp. 84-95, McGee 1998, pp. 211-222).

In connection with the above, one should ask the question whether the Bible will contain fragments created on the basis of knowledge in the field of accounting?

A detailed study in this regard was presented by R. Hagerman (1980, p. 72), and in his opinion, elements of the accounting system (and especially accounting) appear on the pages of the Bible. The analysis of the text allows defining fragments referring to theories and practices currently accounted for in accounting.

The author divided the identified information into three groups concerning (1980, pp. 71-76):
- Accounting,
- Internal control,
- Management accounting.
The researcher identified four passages dealing with the subject of financial accounting (1980, pp. 71-72). The first quote quoted from the Second Book of Kings²⁵⁴ (2 Kings, 12:16 and 22:7) shows the importance of accounting books as a system of control over expenditures. It is emphasized, in the quoted passages, that the trust in the priests supervising the repair of the temple was so high that there was no need to keep accounting records²⁵⁵. On the basis of the quoted descriptions, it can be concluded that the accounting system was accepted as a tool for disciplining managers and contractors, preventing embezzlement of the acquired and invested capital. The resignation from conducting accounting records is a symbol of the greatest trust in subordinated entities.

The confirmation of the above considerations is a fragment of the Gospel according to Luke (Luke 16: 2), where the unsatisfied owner demands from his subordinate the accounting records of his activity²⁵⁶. As noted by R. Hagerman (1980, p. 72), this element can also be read as highlighting the importance of periodic accounting reports for the management process.

In another of the identified quotes (1980, p. 72), the importance of accounting records is also stressed. In Wisdom of Sirach (Sirach 42: 1-8), it was pointed out that one should not be ashamed to keep records with a companion and guest, because this is a sign of honest and prudent conduct. In the opinion of R. Hagerman (1980, p. 72), the reliable conduct of settlements contributes to the limitation of possible conflicts through the implementation of the evidential and accounting function of accounting.

What's more, the quoted part of Ecclesiastes also raises the problem of registry and inventory. According to the Old Testament (Sirach 42: 1-8), prudence and honesty also result from the preparation of a personal list of entrusted items and a list of everything that is taken and issued.

Another area of relations of accounting and the Bible is internal control. According to Hagerman (1980, p. 73), the quotation outlining the need to exercise internal control is the phrase contained in the Book of Micah (Micah 7: 5), according to which one should not trust too much and believe a neighbor or even a friend. So if you can’t trust even your loved ones, all the more you should control employees and other subject entities.

The Old Testament contains a description of the activities carried out as part of the accounting control function, which in a significant way resemble the practices implemented also in the Ancient Egypt. In the Second Book of Chronicles (2 Chronicles 24: 11-12) the process of control of acquired funds was presented, which were first collected and checked by the Levites, and then subjected to re-control by the royal writer and the high priest's representative. As mentioned above, this practice is similar to the procedure used by priests in Egypt. According to the researchers (Łazarowicz 2011, p. 18), the process of accepting grain to the warehouses in Ancient Egypt was carried out in similar fashion, as it was served by at least three people. Two of them independently recorded the amount of grain accepted into the granary, and the third person compared both records, trying to discover possible discrepancies.

²⁵⁴ Fragments of the Bible in Polish were quoted after Holy Scripture elaborated by Rev. M.Petera and Rev. M. Wolniewicz (2003).
²⁵⁵ It is worth noting here that although the Polish translation used the phrase without word “accounts”, in The Jerusalem Bible (1966) features "No accounts were kept with the men".
²⁵⁶ Polish translation (2003, Luke 16: 2) states "Report your business, because you will no longer be in charge", and The Jerusalem Bible (1966, Luke 16: 2) "Draw me up an account of your stewardship".
According to R. Hagerman (1980, p. 73), the analogous process of double control is also shown in the pages of the New Testament in the passage of Second Corinthians (2 Corinthians 8: 20-24), where we find justification of sending members of the community under the leadership of Titus for the purposes of collecting funds collected by the Corinthians. Importantly, the consequences of the lack of proper (double) control are also presented on the pages of the Bible. In John's Gospel (John 12: 6), a description was made about the figure of Judas Iscariot, who turned out to be a thief, and the thefts could take place because he was the person responsible for storing money\(^{257}\), not subject to control by other students.

The last element of internal control presented in the Scriptures is the audit procedure. In the Gospel according to Matthew (Mt. 24: 45-47) there is a fragment describing the characteristics of a wise servant, who is met performing his duties during an unannounced audit. Hegerman (1980, p. 74) emphasizes on the occasion of examining this passage that the awareness of control is disciplinary and preventive in both accounting and religious systems.

The last of the accounting areas affecting the records included in the Bible is management accounting. According to R. Hagerman (1980, 74-75), the impact is most affected by the budgeting process. In the Gospel according to Luke (Luke 14: 28-30), the importance of estimating costs before investing was clearly emphasized. From this fragment we can conclude that the activities aimed at drawing up estimates of expenses were not only considered to be rational but also commonly used.

As R. Hegerman (1980, 75) believes, a similar approach was already presented in the times described by the Old Testament, as shown in Proverbs (Prov 15:22), where the pre-planning activity is the source of a positive result.

R. Hegerman (1980, 75) also identified a fragment inspired by the break-even point theory. According to the author, in the Wisdom of Sirach (Eccles. 7:22), the rules regarding concentration on investments above the break-even point, i.e. the profitable ones, were presented\(^{258}\).

Further accounting traces in the Bible were also identified by other authors (Knowing-jesus.com 2018). The analysis allows us to find quotes depicting the adaptation of accounting activities to religious purposes, an example of which is the description of report making included in the First Book of Chronicles (21: 1) regarding the preparation of inventories. Another area of influence is the use of the accounting profession category as a carrier of a set of features. In this case, we can look at the Book of Isaiah (33:18), where the profession of the accountant is presented as being associated with negative emotions.

The above-mentioned fragments allow to state that one of the factors influencing the final shape of the Bible were the views and theories currently included in the field of accounting. The use of accounting practice examples as carriers for transferring the truths of faith causes that, intentionally or not, accounting shapes the content of books are included in the Holy Bible. What is more, the common acceptance of general economic rules may have contributed to the legitimization of the contents for which examples from the area of accounting were selected.

\(^{257}\) Probably funds belonging to Jesus and his disciples, which were kept in the Judas' pouch, or purse.

\(^{258}\) In the Polish translation (2003, Ecl 7:22) "Do You have animals? Follow them personally; they bring you an advantage, so take care of them" and in The Jerusalem Bible (1966, Ecl 7:22) "Have you cattle? Look after them; if they are making you a profit, keep them".
The next point will be presented the process opposite to the above, i.e. the influence of Judeo-Christian thought on accounting theory and literature.

3. THE INFLUENCE OF RELIGIOUS CONCEPTS ON ACCOUNTING STUDIES

The feedback causes that religious concepts are not only a factor determining the shape of the accounting system, but were also created by it. The impact may be shown in the context of shaping the ethical and moral foundations, as well as the construction of theoretical studies in the field of accounting. The work by S. Budny (1829) entitled "Nauka handlu krótko zebrana" ["Short textbook of commerce"] may be a model of such influence on the basis of Polish literature.

Figure 1. Title page of S. Budny's study

![Image of the title page of S. Budny's study]

Source: (Budny 1829).

This book was written in Vilnius in 1829 by Stanisław Budny legal advisor, translator and creator of publications on trade and law. As presented by S. Sojak and M. Kowalska in their text (2014, pp. 140-142), the author who was a graduate of the Vilnius University had not only theoretical knowledge in accounting, but also a practical job as a bookkeeper in the main committee for drawing up accounts in Vilnius. In addition, according to researchers, S. Budny should be considered the author of the first accounting textbook issued in Polish.

Budny included, in his publication, information on trade, which he claimed (1829, p. I) to be the most important source of national wealth.

The study takes up twenty-two issues, which are detailed in the table below.
Table 1. Content layout of the study by S. Budny.

<table>
<thead>
<tr>
<th>Chapter number</th>
<th>Chapter title</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introductory information</td>
</tr>
<tr>
<td>II</td>
<td>Of the nations who became famous in trade</td>
</tr>
<tr>
<td>III</td>
<td>A brief historical outline of English commerce</td>
</tr>
<tr>
<td>IV</td>
<td>A brief historical outline of the Russian commerce</td>
</tr>
<tr>
<td>V</td>
<td>About arts and crafts</td>
</tr>
<tr>
<td>VI</td>
<td>About the current state of trade in Russia</td>
</tr>
<tr>
<td>VII</td>
<td>On money</td>
</tr>
<tr>
<td>VIII</td>
<td>About banks</td>
</tr>
<tr>
<td>IX</td>
<td>About bills of exchange</td>
</tr>
<tr>
<td>X</td>
<td>On goods in general</td>
</tr>
<tr>
<td>XI</td>
<td>About measurements and weights, extra weight</td>
</tr>
<tr>
<td>XII</td>
<td>About price marking for goods in wholesale trade; inventory of goods; demand; and merchant speculations</td>
</tr>
<tr>
<td>XIII</td>
<td>About various types of trade</td>
</tr>
<tr>
<td>XIV</td>
<td>About private commercial companies</td>
</tr>
<tr>
<td>XV</td>
<td>Some common methods of doing business</td>
</tr>
<tr>
<td>XVI</td>
<td>About seafaring</td>
</tr>
<tr>
<td>XVII</td>
<td>On the costs and damages to which the seafaring is connected and on the calculation of such damages, i.e. the so called mishaps</td>
</tr>
<tr>
<td>XVIII</td>
<td>About security or the reassurance</td>
</tr>
<tr>
<td>XIX</td>
<td>On loans in foreign ports</td>
</tr>
<tr>
<td>XX</td>
<td>On bankruptcy</td>
</tr>
<tr>
<td>XXI</td>
<td>About Bookkeeping</td>
</tr>
<tr>
<td>XXII</td>
<td>Some comments regarding trade</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Chapter XXI was devoted to accounting in the enterprise (1829, pp. 88-95) containing information on:
- The essence of accounting (book-keeping),
- Types of records (single-German, double-Italian),
- The meaning of credit and debit concepts,
- Types and rules of creating books (main and auxiliary) with examples.

In the context of the analysis of the impact of religious texts, it should be noted that the content of the "Nauka handlu krótko zebrana" was developed using the characteristic question-answer system (1829, p. V). What's more, in the preface to the book, S. Budny (1829, pp. I-VI) concluded that the text was developed in a catechetical manner on the model of a commercial catechism written in English. This statement raises questions:
- In what sense the words "catechism" and "catechetical" are used,
- Whether the form used is modeled on religious studies,
- Can the form be legitimized in the context of the deliberations under consideration?

The answer to the first of the questions should start with presenting the possible meanings of the terms used. According to the definition from the PWN foreign word dictionary (2010, p. 615), the word catechism may mean:
- A lecture on the basic principles of the Christian religion, often in the form of questions and answers; also a book containing this lecture, or
- (figuratively) basic principles of something.

In addition, as seen from the etymological point of view, the word "catechism" comes from the Latin-related word *catechismus* and the Greek *katechismos* meaning "instruction of life." Undoubtedly, both expressions of their original use were found in the context of the instruction for religious practices.

The word "catechism" is similarly described by the 1939 Encyclopedic Dictionary of Foreign Words, by Trzaska, Evert and Michalski (1994, p. 960), also here the catechism was defined as a concise lecture of the principles of faith in the form of questions and answers.

Also the dictionary of the foreign words of Kopaliński (2006, p. 382) is limited to the definition of a catechism as a book that is a lecture on the principles of faith, usually in the form of questions and answers.

By subjecting the word "catechism" to further analysis, it can be seen that the first of the meanings mentioned in the PWN dictionary is also adopted in other languages. For example, the word "catechism" in the Webster dictionary (1994, p. 153) is described as:

- Summary of religious doctrine, often in the form of questions and answers, or as
- A set of questions in the form of a test.

The above dictionary definitions show that the basic meaning of the word "catechism" is the elaboration of the basic principles of religion, with particular emphasis on the characteristic form of such a text (question-answer).

However, the analysis carried out does not prejudge the meaning, in which the word "catechism" was used by S. Budny. However, in the introduction to his study, the Polish author reveals that the concept of the dissertation was based on an English study by William Pinnock (1823).

Unfortunately, in the introduction to his work, the British author did not present the premises for the use of the word "catechism", but the analysis of his achievements covering the entire cycle of "catechisms" concerning various fields of science leads to the recognition that this word was used in the context of a comprehensive and complete accounting study.

The above-mentioned conclusion, however, does not determine the total rejection of the concept of inspiration with religious texts, and thus the thesis that the books by S. Budny and W. Pinnock were formulated following the example of religious catechism. Further considerations in this respect should begin with the analysis of the English original. W. Pinnock (1823, p. 2) in the introduction to his dissertation did not refer to the question of the source of inspiration in the form of his book, which, like the later study by S. Budny, groups the text as questions and answers. As it has been presented, the definitions of the word "catechism" emphasize that religious studies often take on the same specific form as the texts discussed. Therefore, two questions should be asked here:

- Whether this form is characteristic for religious catechisms,
- Do other accounting works from the same period also have such a content layout?

Comparing "A catechism of trade and commerce..." (Pinnock, 1823) to Anglican catechisms one should affirmatively answer the first question.
Undoubtedly, the layout of the text in the two editions of "A Short Catechisme..." is almost identical to that used in the work of W. Pinnock. Therefore, the necessity to find the answer to the second question becomes so important, i.e. whether this form was generally accepted also in the case of other studies concerning the principles of keeping accounting books. As a material for comparative analysis, one can use P. Kelli's (1805) textbook entitled "The Elements of Book-keeping: Comprising a System of Merchants' Accounts..." which, as can be seen in the figures below, has a different form for presenting the content.

Figure 3. Fragments of a study by P. Kelly, a contemporary book of that by W. Pinnock

Source: (Kelly 1833).
What is important, as can be seen below, also the work of Luca Pacioli "Summary of arithmetic, geometry, proportions and proportionality..." was developed in the form of a continuous text, not a question-answer.

Figure 4. Fragments of L. Pacioli's study

Source: (Pacioli 1494).

What is not without significance for our attempts to read the intentions of W. Pinnock may also be the information about the fact that he was a baptized person, whose son was an ordained minister (Wikipedia). This allows us to assume that W. Pinnock was a person familiarized with religious texts.

The above analysis prompts us to re-establish the thesis (this time at the level of the English original) that the discussed test was consciously elaborated in a form similar to religious catechisms.

A similar reasoning process can also be carried out in direct relation to S. Budny's book. Also in this case, a direct comparison of pages from the study and a general catechism issued in a similar period reveals a large similarity of form. They are constructionally almost identical texts.
The comparison of S. Budny's dissertation with other accounting studies from the same period also shows that giving the question-answer form was not a common practice.
Bearing in mind the above comparisons, it can be considered legitimate to specify that both books are structurally similar to religious catechisms. The question whether S. Budny, was modeling his work on W. Pinnock's catechism, deliberately retained this characteristic form, remains unsolved.

Going to the last of the questions asked, one must consider the possible reason for using such form of studies.

Taking into account the historical context and information about the authors, one can accept the thesis that this form was chosen because of two factors:
- The readers were already well acquainted with the form of catechism,
- Emphasizing the meaning of the content.

Considering the first of these reasons, one should recall the close ties of W. Pinnock with the Church in England. In turn, in the case of S. Budny, it is worth noting that the social changes that took place in the Enlightenment Age in Poland and Lithuania were not the same as in the countries of the Continental Western Europe. The local specificity meant that in the Republic of Poland the processes of Catholic enlightenment are recognized (Ślusarska 2012, pp. 175-176), which were characterized by the involvement of intellectual circles in the reform of the church operating on the territory of Poland and Lithuania, and not in processes distancing new trends from religion and church structures. Consequently, in Poland and Lithuania the Enlightenment movements did not undermine the significance of the Roman Catholic Church. Therefore, it can be concluded that the form of the study preserved by S. Budny was widely known and could facilitate understanding of the content contained in the book by its recipients.

Another factor influencing the choice of the catechism form could be an attempt to emphasize the content contained in the study. S. Budny, in the introduction to his study, emphasizes the superiority of trade over agriculture and the handicraft industry (Budny 1829, p. I). In addition, according to the author, in 1829 in the Republic of Poland there was still no study on the principles of conducting trade, which would present this issue in a comprehensive manner (1829, p. V) in Polish. Therefore, for S. Budny it became even more important to adopt the appropriate form of the text, which would allow the most common dissemination of the content presented in the book, and thus fill the educational gap identified by the author. A form similar to a religious text could legitimize the knowledge contained in the book and contribute to the acceptance of the statements contained therein.

SUMMARY

The aim of the present study was to present feedback between accounting and religion.

Religion is one of many factors that shaped the current form of the accounting system. However, when considering the impact of religion on accounting, one should also pay attention to feedback resulting in the inclusion of accounting concepts in religious texts, and in the Bible in particular.

Many fragments can be identified in the Old and New Testament containing concepts in the field of accounting, including in particular:
- Rules of keeping accounts,
- Internal control,
- Budgeting.
In turn, an example of the influence of religion on Polish literature in the field of accounting is the study of S. Budny from 1829 entitled "Nauka handlu krótko zebrana" ('Short Textbook of Commerce). The author gave the work a form similar to a catechism, which can be explained by two factors:
- The readers were already well acquainted with the form of catechism,
- Emphasizing the meaning of the content.

The shape of S. Budny's study was also a factor legitimizing the contents contained in it.

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