

THE POTENTIAL OF SELECTED REGISTRATION MODULES OF THE INTEGRATED IT ENVIRONMENT IN THE PRACTICAL BUILDING OF FINANCIAL MONITORING OF THE ENTERPRISE

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Purpose: The aim of the paper is to understand the spectrum of information generated by registration IT systems for the implementation of financial monitoring in enterprise management.

Design/methodology/approach: To accomplish the objective of the study, the critical analysis of literature, descriptive analysis and case study were used. The article presents the information functionality of the registration module in the SAP system in relation to the implementation of financial monitoring in the integrated environment. The theoretical part presents the role of information from IT systems in financial monitoring. In the subsequent part of the study, the attention is paid to information opportunities of the integrated registration systems in enterprises. The case study shows the selected areas of information from the SAP system related to the implementation of the purchase process.

Findings: The publication deepens the understanding of the spectrum of information generated by registration IT systems for the implementation of financial monitoring in enterprise management. The main contribution of the article is the in-depth understanding of the possibility of financial monitoring construction using registration IT systems.

Originality/value: The problem of the potential of registration modules of the integrated IT environment in the practical building of financial monitoring of the enterprise is not new. However, it is still very important and up-to-date due to its impact on decision-making in terms of the implementation of modern IT systems supporting enterprise management.

Keywords: financial monitoring, enterprise management, registration IT systems, information.

Category of the paper: literature review and case study.

1. Introduction

Digitization of information systems in contemporary enterprises contributes to increased efficiency of the operation of business management processes (Cabała, 2020). Among the premises for the implementation of the integrated IT environment, among others, the following

are listed: enterprise development, increased productivity, striving to achieve a competitive advantage (Grabowska, 2014), or a change in management methods. When selecting registration systems in the IT environment, the key role is played by the scope of information, which can be obtained using them.

The current state of knowledge in this field is subject to constant exploration by researchers and practitioners of management, which brings about that it is characterized by methodological multiplicity (Spalek, 2018). The lack of a generalized approach towards the potential of registration modules of the integrated IT environment in the practical building of financial monitoring of the enterprise brings about that it has never received a uniform assessment or the method of measurement. The above arguments caused that an attempt was made to conduct a theoretical analysis and carry out empirical observations to fill in an observed gap by deepening the understanding of how to use the potential of registration modules of the integrated IT environment while building financial monitoring to streamline enterprise management processes. On this basis, the primary objective of the study was formulated, i.e., to understand the spectrum of information generated by registration IT systems for the implementation of financial monitoring in enterprise management.

2. Registration IT systems as a source of information in financial monitoring – the area of liabilities towards suppliers

Running contemporary enterprises makes managers face high demands in terms of their competences and powers (Otoła, 2013). The development of IT applied in enterprises provides companies with wide opportunities to improve and accelerate the processing of individual tasks (Skowron-Grabowska, Szczepanik, 2015).

In the enterprise management system, information can be seen with ambiguity. According to Z. Martyniak, information can be treated as a product or a process leading to receiving this product (Martyniak, 2000, p. 5). Information as a product is the content of a specific meaning about something, for someone and due to something, expressed by linguistic or (and) non-linguistic signs (Martyniak, 2000). J. Czekaj believes that “information as a process means an ordered set of subsequent, interdependent changes of the states of data or output information, taking place under the influence of the combination of actions of employees participating in this process and the functioning of technical means used by them, aimed at receiving “the product” in the form of information, corresponding to the needs of the relevant user” (Czekaj, 2000, p. 24).

Information on facilities and enterprise management processes is subject to various criteria of classification. Based on the study by J. Kaźmierczak, one may give several examples of classification of such information. One of the primary criteria for classifying information in

management processes is the method of its acquisition. It is possible to distinguish the primary information here, being the product of the research procedure and secondary information coming from available resources, such as, studies, scientific publications, instructions, technical documentation (Kaźmierczak, 2000, p. 188).

In relation to the defined concepts, Figure 1 is a graphical presentation of the circulation of information discussed in the process of management between the supplier and the information user. In this process, the sources of information were identified, thus the place of its acquisition, channels of information flow to the recipient and the processes of its processing and use.



Figure 1. Diagram of information flow between its supplier and user.

Source: (Kaźmierczak, 2000, p. 188).

It is worth pointing out that Figure 1 also illustrates the channel of the flow of demand for information necessary to make a decision and coming from the management unit. In the presented circuit, the role of the information holder is played by both the recipient and the supplier of information. Moreover, the presented diagram of information flow enables the effective implementation of the decision-making process in the functioning of individual management processes of the enterprise. Depending on the nature of the data sources and the purpose of information it can be differently used in enterprise management. The skillful acquisition, collection and storage of current and reliable information allows for conducting effective financial monitoring in the enterprise.

In this context, the control function of enterprise management arises, which requires constant monitoring. According to H. Kościelniak “monitoring is an information mechanism which enables the tracking of quantitative and qualitative changes of some, previously established observation objects, using specific registration techniques” (Kościelniak, 2010, p. 45). When implementing monitoring in the enterprise, economic information is acquired, which is “the result of observation or measurement characterizing an economic phenomenon or an economic process and allowing for its assessment to make decisions correcting the conducted operation or beginning this operation” (Kostera, 2008, p. 159). On the other hand, financial monitoring is defined as a process of continuous economic and financial analysis, supporting financial decisions and operationalization of the goodwill (Caputa, Szwejca, 2008, p. 239).

To sum up, it is worth pointing out that the scope of the functioning of IT systems in enterprise management provides a wide range of possibilities of the effective implementation of financial monitoring process (Tomski, 2015). The financial monitoring process can be implemented by the ERP II (Distribution Resource Planning II) systems, which are created to plan the enterprise resources based on its components. The system defined as ERP II is “an integrated multi-access IT system to support enterprise management, comprehensive in terms of functionality, and open, being a set of applications typical of the sector, which generate values for customers and shareholders by sharing and optimizing processes both inside the enterprise and between enterprise partners”. The functionality of the ERP systems in terms of planning allows for the verification of the implementation of these plans for the purposes of financial monitoring in the enterprise. Moreover, modern financial and accounting systems have in-built transactions for the preparation of selected reports of financial monitoring concerning each sphere of the enterprise activity, which is covered by the computer-aided management in the appropriate IT module in the computer system (Nowicka-Skowron et al., 2011). The practical functionality of financial and accounting modules in the integrated IT environment in terms of the implementation of financial monitoring in the enterprise is presented in the subsequent part of the study based on the implementation of the purchase process in the SAP system.

3. Research methodology

In this study, the triangulation of research methods was applied. The choice of critical analysis of literature was determined by the occurrence the research gap in terms of using the potential of registration modules of the integrated IT environment when building financial monitoring for streamlining the processes of enterprise management. Critical analysis of literature allows for highlighting the existing approaches, both theoretical and research-based

(Sekaran, Bougie, 2010). Moreover, critical analysis of literature enables the demonstration of the method for preparing research works aimed at extending the existing knowledge or developing a specific research field (Levy, Ellis, 2006). For this reason, critical analysis of literature should be treated as a synthetic, objective, and reliable summary of the specific theoretical area (Rowley, Slack, 2004).

Using the descriptive method is to describe cognitive activities and their products (Popper, 2005). Therefore, the descriptive method performs an idiographic function in empirical cognition, which consists in the description of a single organization or structure (Popper, Hansen, 2014). It can be applied to describe an event, phenomenon, process, or strictly defined research problem. Such a methodological approach allows for the formulation of research questions and their verification in the subsequent procedure (Schjoedt, Bird, 2014).

The case study method enables examining current relationships. As a research method, a case study is characterized by the occurrence of a range of activities following each other and affecting the correctness, accuracy and detail and timeliness of the research. When considering the specificity of carrying out the research, the choice of a case study contributes to significant extension of the analyzed and examined problem (Eisenhardt, Graebner, 2007). At the same time, a case study is a method enabling multifaceted analyses, which would not be possible when using a different research method.

4. Characteristics of the research object

The research object was selected based on the targeted selection. The primary criterion for selecting the entity for the study was direct access to empirical data allowing for making observations. The surveyed enterprise is a part of an international cement concern, conducting business activities in more than 50 countries worldwide. The entire concern uses the ERP II SAP system. The examined enterprise has a modern machine park. The basic products offered by the surveyed entity are cements, aggregates, and concretes. The production process is composed of many phases, the reflection of which as well as quantitative and qualitative records and management information can be found in selected modules of the SAP system.

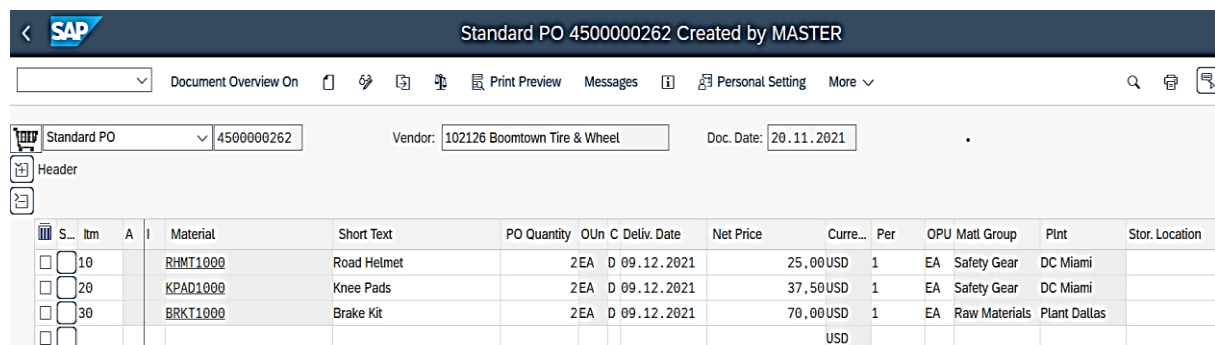
Cement production is a complex process, requiring high expenditure of energy and raw materials as well as specialized machinery and equipment. Therefore, obtaining the required quality of the final product requires not only an appropriate technology and procedures, but also support using the integrated IT system. For this reason, the process of information flow in the surveyed enterprise is codified, which allows for generating a broad spectrum of information transmitted from individual decision-making cells throughout the information channel. The application of coherent information carriers ensures the effectiveness of planning the conducted activity and monitoring the accomplishment of the intended objectives.

5. The spectrum information in terms of accounting in the SAP system for the implementation of financial monitoring – a case study

The primary document allowing for the implementation of financial monitoring in the SAP system is a purchase order, which, among others, includes information concerning:

- the vendor's data (vendor),
- parameters and quantities of the materials ordered (material, short text, PO quantity),
- delivery dates (deliv. Date),
- unit prices (Net price).

In the SAP system, orders can be generated using the ME21N transactions. Orders are primarily created by employees of the purchasing department, but other authorized employees may also have access to this transaction. Each order generated contains information allowing for the identification of a person introducing data into the system and the date of the order creation. The basic information from the order generated in the SAP system is presented in Figure 2.



The screenshot shows the SAP Standard PO 4500000262 interface. The header section includes the document type 'Standard PO', the PO number '4500000262', the vendor '102126 Boomtown Tire & Wheel', and the document date '20.11.2021'. Below the header is a table of items with columns for S., Itm, A, I, Material, Short Text, PO Quantity, OUn, C, Deliv. Date, Net Price, Curre..., Per, OPU, Matt Group, Plnt, and Stor. Location.

S.	Itm	A	I	Material	Short Text	PO Quantity	OUn	C	Deliv. Date	Net Price	Curre...	Per	OPU	Matt Group	Plnt	Stor. Location
<input type="checkbox"/>	10			RHMT1000	Road Helmet	2EA	D		09.12.2021	25,00USD	USD	1	EA	Safety Gear	DC Miami	
<input type="checkbox"/>	20			KPAD1000	Knee Pads	2EA	D		09.12.2021	37,50USD	USD	1	EA	Safety Gear	DC Miami	
<input type="checkbox"/>	30			BRKT1000	Brake Kit	2EA	D		09.12.2021	70,00USD	USD	1	EA	Raw Materials	Plant Dallas	

Figure 2. Standard purchase order in the SAP system.

Source: Own study based on the data from the SAP system.

In the order generated in the SAP system, the order history is created in which one may find information concerning whether a goods receipt was issued for the order and if an invoice receipt was entered in the books. Each of these documents can be displayed directly from the order and additional information can be read. The contra-entry of a goods receipt or an invoice can be also seen in the order, if they were issued. The order history is visible separately for each item of the order, which is presented in Figure 3.

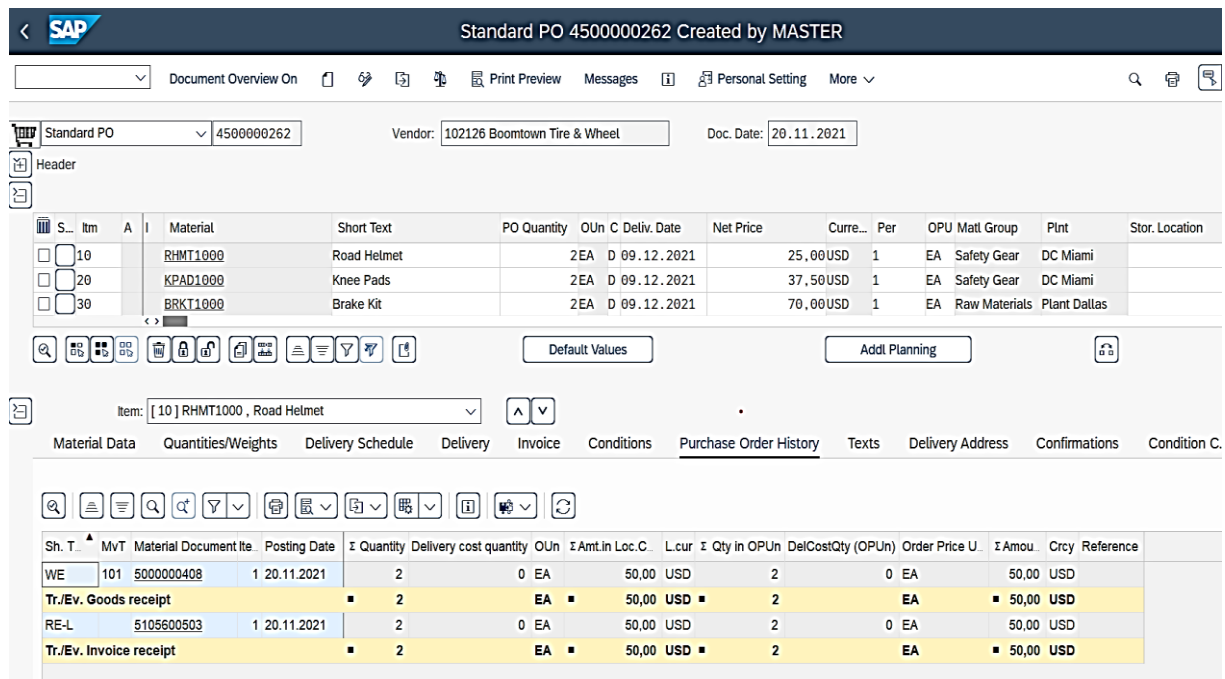


Figure 3. Standard purchase order in the SAP system – purchase order history.

Source: Own study based on the data from the SAP system.

In the “Status” ribbon, one may find general information concerning:

- how many units were ordered (Ordered)?,
- how many units were delivered (Delivered)?,
- how many units are still to be delivered (Still to deliv.),
- how many units are invoiced (Invoiced)?,
- whether there were prepayments (Down paymts.).

Moreover, each of the listed pieces of information is also presented in terms of value.

The order status is presented in Figure 4.

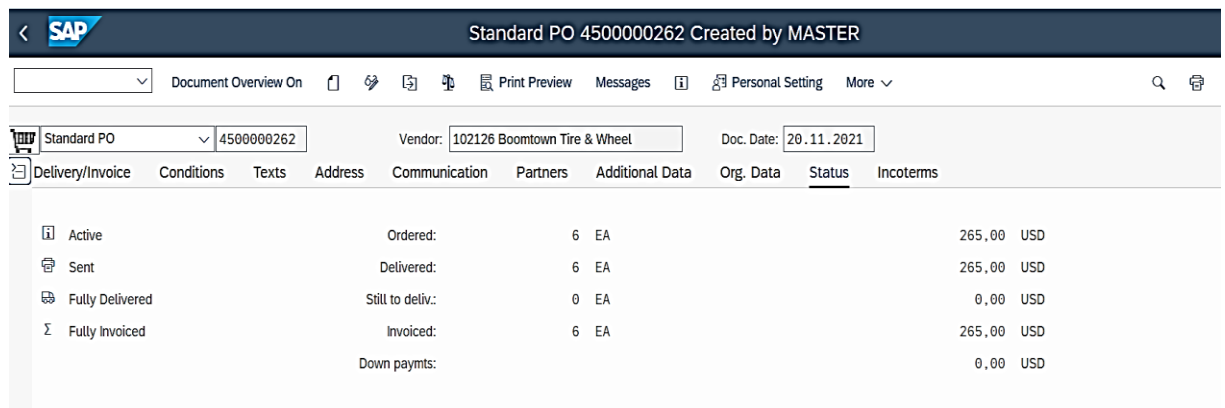


Figure 4. Standard purchase order in the SAP system – order status.

Source: Own study based on the data from the SAP system.

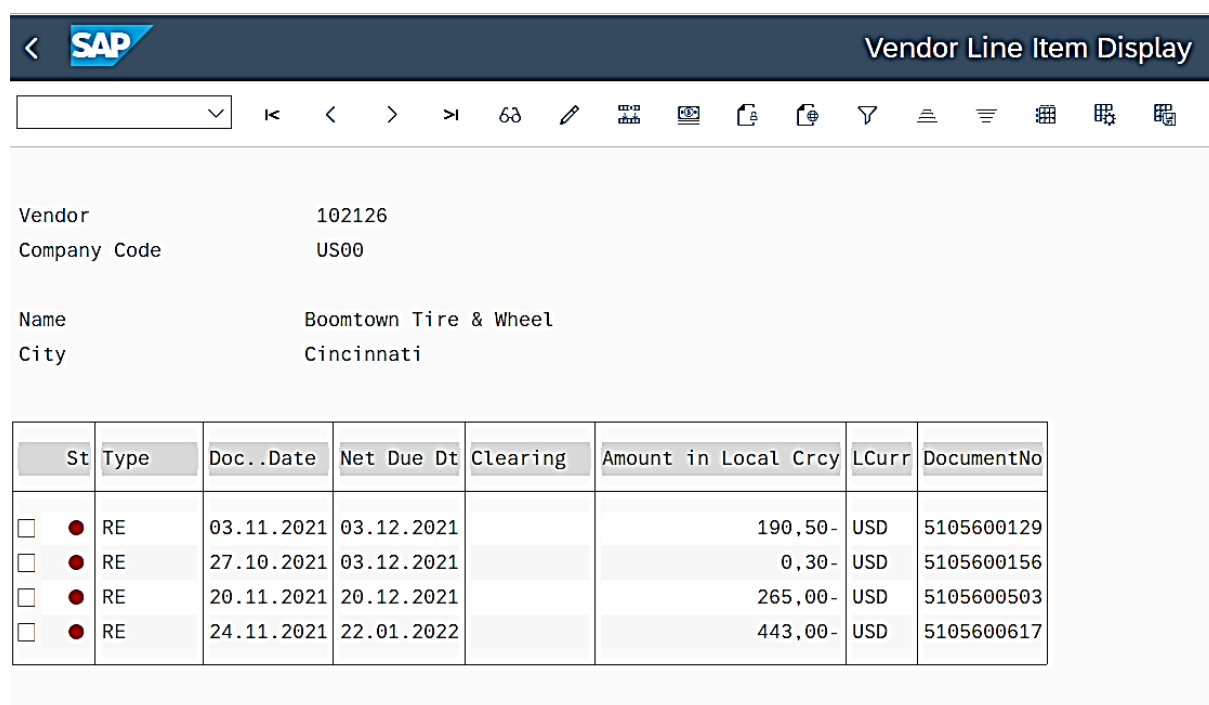
The invoice entered in the books can be seen on the supplier’s balance, which is displayed through the FK10N transaction. After completing the information on the vendor number, economic unit and marketing year, the vendor’s balance is displayed in the adopted T-account layout, which is reflected in Figure 5.

Period	Debit	Credit	Balance
Balance Carry...			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11	990,50	1.698,80	708,30-
12			

Figure 5. Vendor balance display in the SAP system.

Source: Own study based on the data from the SAP system.

After clicking on the field at the intersection of the Credit page and the period considered, e.g., 11, the system redirects the user to the “credit” operations performed in the period considered. In Figure 6, it is shown that 4 invoices in the MIRO transaction were entered in the books in the period considered (accounting the invoice in the reference to the order), which the RE document type informs about. Moreover, Figure 6 shows that these documents are not settled since this is indicated by the red symbol next to each item, i.e., its status.



St	Type	Doc. Date	Net Due Dt	Clearing	Amount in Local Crcy	LCurr	DocumentNo
<input type="checkbox"/>	● RE	03.11.2021	03.12.2021		190,50-	USD	5105600129
<input type="checkbox"/>	● RE	27.10.2021	03.12.2021		0,30-	USD	5105600156
<input type="checkbox"/>	● RE	20.11.2021	20.12.2021		265,00-	USD	5105600503
<input type="checkbox"/>	● RE	24.11.2021	22.01.2022		443,00-	USD	5105600617

Figure 6. Vendor line-item display in the SAP system.

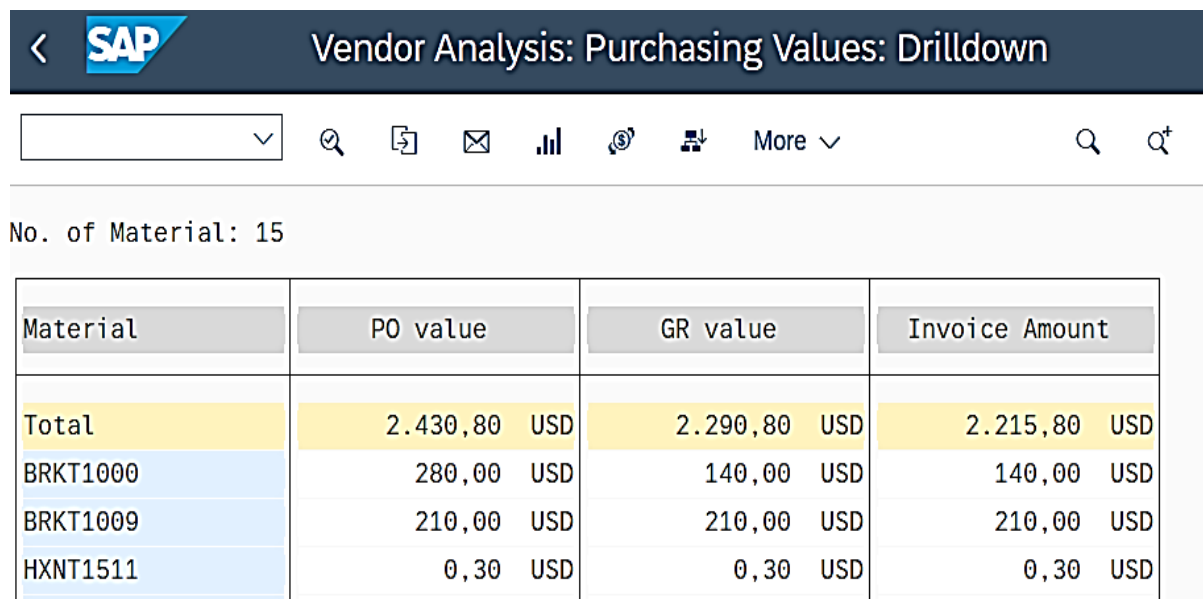
Source: Own study based on the data from the SAP system.

The discussed process of financial monitoring concerning liabilities towards suppliers presents some of work in the SAP system, which involves:

- employees of the purchasing department (order),
- employees of the warehouse department (goods receipt),
- employees of the accounts payable department (invoice booking).

The SAP system allows for the process recognition and presentation of economic events thus enabling the constant monitoring of the situation of the analyzed enterprise (Łęgowik-Małołepsza, Turek, 2018, pp. 19-32). Online access to the system enables decision-making based on current and up-to-date information. The SAP system creates structured data sets, constituting a logical whole.

At the next stage of the monitoring of liabilities towards suppliers, it is possible to generate the report known as “the report of non-invoiced deliveries”, which is presented in Figure 7. This report is a very useful tool in the SAP system since it provides essential information about what materials were ordered, from which supplier and for what value. In this transaction, it is possible to obtain information if a goods receipt was issued for the specific item of materials and if an invoice receipt was entered in the books. Using this transaction, one may find quickly if there were deliveries in the enterprise for which no invoice was entered in the books.



Material	PO value	GR value	Invoice Amount
Total	2.430,80 USD	2.290,80 USD	2.215,80 USD
BRKT1000	280,00 USD	140,00 USD	140,00 USD
BRKT1009	210,00 USD	210,00 USD	210,00 USD
HXNT1511	0,30 USD	0,30 USD	0,30 USD

Figure 7. Vendor analysis: Purchasing values: drilldown in the SAP system.

Source: Own study based on the data from the SAP system.

To sum up, it is worth pointing out that the presented purchase process in the SAP system shows the practical functionality of financial and accounting modules in the integrated IT environment in terms of the implementation of financial monitoring in the enterprise. It presents an exemplary process implemented in the SAP system. The sources and types of information necessary for the effective implementation of financial monitoring in the enterprise were identified at each of the discussed stages of the purchase process.

6. Discussion

The introduction of the SAP system and its implementation in financial monitoring is associated with a wide range of advantages, among which significant cost savings related to process optimization deserve a special attention. The monitoring of employees' work in the SAP system, which is conducted at the highest level of technological advancement, contributes to the rapid identification of areas requiring improvements. IT opportunities in terms of generating advanced reports to implement financial monitoring in the enterprise significantly exceed other financial and accounting systems available in the market. Practically unlimited possibilities in terms of configuring reporting transactions are applied not only in financial monitoring but also in terms of the broadly understood management accounting, thus providing necessary information to make effective managerial decisions.

Among the disadvantages of the SAP system, the costs of the SAP system should be listed. Unfortunately, the costs of the system often constitute such a barrier that many enterprises are unable to overcome. It happens that the costs of the SAP system exceed the benefits resulting

from its implementation. It also happens that employees cannot efficiently use the IT functionalities of this system. The listed drawbacks can be the effect of the lack of relevant on-the-job training. The diversity of the available reporting transactions offered by the SAP system, which enable making rational decisions to conduct financial monitoring in the whole concern, is often unrecognized and, at the same time, unused in the enterprise. Therefore, the recommendation for the surveyed enterprise is to implement a series of on-the-job training courses in the detailed operation of the SAP system in individual organizational units of the surveyed enterprise to search for new, useful transaction codes increasing the IT functionality of this system.

7. Conclusions

The objective of the study was to understand the spectrum of information generated by registration IT systems for the implementation of the financial monitoring in enterprise management. In the case study concerning the implementation of the procurement process in the SAP system, the assumed objective was accomplished. In the study, it was indicated in what transactions the information necessary for the implementation of financial monitoring in the area selected for the research is required. Deciding on when and in what form to implement the financial monitoring and how to use the possessed IT system is an individual business of each enterprise. The decision-making process in this area depends on many factors, such as, the market in which the enterprise operates, the sector, information needs. Entrepreneurs ought to skillfully use the potential of registration modules in the integrated IT environment for the accomplishment of the assumed operational and strategic objectives. Building the financial monitoring of the enterprise based on information generated by the integrated IT system allows for assessing endogenous and exogeneous conditions, created in changing conditions of the environment.

In the light of the conducted considerations, it is worth pointing out that the monitoring of the procurement process allows the surveyed enterprise to streamline the processes of procurement and production. Additionally, it indirectly translates into customer satisfaction. The main contribution of the article is the in-depth understanding of the possibility of financial monitoring construction using registration IT systems. Therefore, the organization of information flow in financial monitoring should support decision-making processes in the enterprise. At the same time, information flow in financial monitoring ought to be a determinant of rationality, determining the potential of the applied IT system. The further direction of the research should apply to the application of financial monitoring in the integrated IT environment since it may become an important component for building the enterprise strategy.

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