Business Process Analysis And Fraud Risk Management Design: A Case Study Of PT. Global Intan Teknindo

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Abstract.

Small and medium business (SMEs) are vulnerable to fraud especially when they have informal processes, unrecorded operating processes, and poor internal controls. The paper will explore the business processes within PT Global Intan Teknido (GIT), a small distributor of industrial instruments, in an attempt to identify areas vulnerable to fraud and develop a suitable fraud prevention system. The qualitative exploratory case study took place through the use of in- depth interviews, first hand observation and analysis of documents of the owner, the sales and finance employees and the customers and the vendors. Business Process Mapping (BPM) was used to represent the As-Is workflow, Fraud Triangle Theory to help evaluate the behavioral drivers, benchmarking to compare practices with others of similar companies, and Fraud Risk Management (FRM) framework as the foundation of creating a Stop-Loss System. The results demonstrate the risk of fraud based on the undocumented requests to personal WhatsApp accounts, the lack of documentation regarding the communication with vendors, issuing quotations not related to the system, purchase orders made not in the system, the creation of the invoice by sales employees, and payment made by customers to personal bank accounts. Opportunity was the prevailing determinant as shown by Fraud Triangle analysis and reinforced by the sales pressure and rationalization pertaining to speed and customer demands. Benchmarking confirms that systemized documentation and systems of multi-level approval of documents will make the fraud exposure significantly less. This paper is informed by these points, hence the proposal of an FRM-based Stop-Loss System, which is comprised of preventive, detective, and corrective controls. The research increases the body of literature on SME fraud prevention through proving the possibility of combining business process analysis and FRM in developing an effective and resource-friendly control mechanism applied to small businesses.

Keywords: *Business Process Mapping; Fraud Triangle; Fraud Risk Management; Stop-Loss Strategy and SME Governance.*

I. INTRODUCTION

Fraud has been noted to be among the biggest risks to small and medium enterprises (SMEs), especially those with informal business processes, few or no documentation, and internal controls that are poorly in place. According to previous research, SMEs tend to live by the principle of trust-driven operations, flexibility in decision-making, and personal contact, which, although effective, may pose serious risks of fraud and misconduct of the operations [1], [4], [11]. Where there are no structured business processes in an organization then there may be chances of manipulation in different levels of transactions such as procurement, pricing, approval and payment [3], [6]. The literature of Business Process Management (BPM) underlines the significance of mapping and documenting the processes of the organization to detect the inefficiencies and gaps in the control that can produce the fraud or error [4], [5]. Research findings also reveal that poor segregation of roles, lack of verification devices and use of informal communication system are prevailing factors resulting in fraud cases in SMEs [7], [10]. Another theory on fraud is the Fraud Triangle Theory, which further states that fraud arises when pressure, opportunity, and rationalization are combined in the environment in which there is a lack of controls [3]. Although there are longstanding theoretical backgrounds, not all SMEs have the resources or the internal capacity to develop feasible systems to prevent fraud based on their operational environment.

PT Global Intan Teknindo (GIT) is a small distributor of industrial instruments in Indonesia that has suffered a number of fraud-related cases due to unregistered inquiries, purchase orders that have not been registered, unauthorized quotations, and customer payments deposited to individual bank accounts. Those cases revealed the underlying vulnerability of its business practices and the necessity to have a more orderly and disciplined workflow. This paper will examine business operations of PT GIT to determine the areas that are prone to fraud, and also to establish a viable framework to prevent fraud using Business Process Mapping (BPM), Fraud Triangle Theory, benchmarking, and the Fraud Risk Management (FRM) approach. The aim is to recommend a Stop-Loss System that incorporates preventive, detecting and corrective controls which

are appropriate in small organizations. This study adds value to the existing literature because it illustrates how business process analysis could be incorporated into an FRM framework to create a resource-effectiveness and practicable internal control system among the SMEs.

II. METHODS

Experimental (or Materials and Methods)

In this research, qualitative exploratory case study design was used to explore fraud-prone sections of the business processes of PT Global Intan Teknindo (GIT). This approach was chosen because it is the one that is suitable in the real practice of organization, dynamics of behaviour, and control that are weak in real situations. The study used various sources of data to guarantee triangulation, as well as enhance validity. The information was gathered using semi-structured interviews, direct observations, and analysis of documents, which are in-depth. The main stakeholders in operational workflow such as the owner, sales personnel, the finance staff personnel, customers and the vendor staff personnel were interviewed. This was to be accomplished through interviews to gain practical understanding of the routine operations, informal operation and areas of potential fraud.

Direct observation was done to learn the practical would work with inquiries, quotations, purchase orders, invoices and payments and also to compare the actual activities with the way the company said it worked. Document analysis involved consideration of quotations, purchase orders, invoices, records of internal communication and previous fraud cases to detect inconsistencies or anomalies. Four complementary tools were used to conduct the analysis. The As-Is workflow was visualized with the help of Business Process Mapping (BPM) and the gaps that might allow manipulation were identified. Fraud Triangle Theory was used to classify behavioral motivators that led to fraud acts. The exercise of benchmarking was carried out through comparing the practices of GIT to those of a bigger industrial distributor with similar business model. Lastly, findings were synthesized using Fraud Risk Management (FRM) framework to come up with a Stop-Loss System comprising of preventive, detective and corrective controls. This type of methodological design allowed having a complete picture of operation weaknesses and a starting point in the creation of a realistic fraud prevention model adapted to small businesses.

III. RESULT AND DISCUSSION

The workflow analysis of the operational process at PT Global Intan Teknindo shows that the risks of fraud appeared in the company in a systematic manner because the company was highly dependent on informal operations and the lack of systematic process controls. Business Process Mapping (BPM) offered a well-defined visualization of how every transactional phase created vulnerabilities that could be compromised without being noticed immediately. The mapping showed inappropriate alignments between the desired processes of the company and the actual activities of the employees especially sales and procurement cycle.

1. Business Process Vulnerabilities (BPM Results)

The As-Is process reveals that the majority of transactions were initiated via the informal means, via personal WhatsApp accounts. These questions did not get recorded or tracked down, which allowed possible off-system deals. The communication between the vendor was also informal and a negotiation record could not be traced. Quations were being made and served without checking with the finance department and this enabled price manipulation and unauthorized margins. Purchase orders (POs) were also done frequently outside the company and invoices were made sometimes by the sales people themselves using the letterhead of the company. Finally, the riskiest part was also that a number of customer payments were redirected to personal bank accounts. The table below summarizes the main findings:

Table 1. Summary of Business Process Risks Identified

Business Process Stage	Likelihood	Impact	Risk Level	Key Notes
Inquiry	4	3	High	Transactions unrecorded in CRM, possible private deals.
Price Request to vendor	4	3	High	Informal vendor communication, risk of collusion.
Quotation & HPP	4	4	Very high	Direct quotation to customer without approval.

Purchase Order	3	4	High	Unrecorded POs handled privately.
Invoice	4	4	Very High	Unauthorized invoices created by sales.
Payment	5	5	Extreme	Actual fraud, customer payments to personal accounts.

2. Fraud Triangle

The Fraud Triangle analysis indicates that the cases of fraud in PT Global Intan Teknindo were as a result of operational pressures, structural weaknesses and cultural rationalizations that had evolved over time. The major pressure was on the sales personnel who had to meet high sales goals and had to meet deadlines to customers. The fact that many transactions needed urgent attention, such as in calibration services or emergency procurement situations, gave the impression that adherence to formal procedures would only slow down the process and risk the orders. Pressure was also felt by the finance staff in the process of reconciling unfinished or inconsistent documentation, thus always under pressure to ensure cash flow remained within the company even when offsets occurred due to the irregularities in the sales activities which were not documented. Such a time-sensitive working environment and lack of procedural expectations compelled employees to adopt shortcuts to avoid the defined workflow processes. The strongest element that facilitated fraud in the company was opportunity. Inadequate internal controls, incomplete segregation of responsibilities and informal communication channels more or less created an operational environment in which the people could operate without supervision. Corresponding asking questions and communicate with sellers via personal WhatsApp accounts were making the off-system transactions feasible and did not leave a trace of auditing. Prices and margins would be manipulated by regularly preparing quotes and sending them without a check to the finance or the management.

Personal chat purchases were not recorded leaving orders to be processed and closed without entering into the system. The most significant opportunity emerged when the customers were given the chance (implicit or explicitly) to pay money to their personal bank accounts of the employees. This was a gross violation of internal control since money could be stolen without being noticed at the same time and the company would suffer direct financial losses. These behaviors were strengthened by rationalization where employees defended their acts of going around the established procedures by explaining that they had to keep customers, close business deals with a lot fewer clicks or lose business to rivals. Most employees thought that casual ways were prevalent in the distribution business, and that the culture of breaking the law was normal. Others viewed their activities as efficiency enhancers because they said that adherence to procedures would slow down activities. This cultural mentality made the aspect of ethical sensitivity less sensitive and procedural deviations to be seen as advantageous instead of being seen as dangerous. With time, such rationalizations got instilled in the organizational practices that informal practices were the norm of operation and not an exception. Each of the Fraud Triangle components analyzed independently did not work but made a reinforcing cycle with each other.

Pressure was the force that formed the drive to go around the procedures, opportunity was the channel through which the same could be accomplished without the notice, and rationalization was the psychological explanation that made the same acceptable. It is such a dynamic that abnormalities may exist over prolonged periods without detection. Additionally, the structural problem coupled with the culture of normalization rendered fraud hard to detect and even more challenging to prevent. The importance of this analysis, is that it shows that individual misconduct did not cause fraud at PT GIT, but it was the working of systemic conditions that facilitated and condoned inappropriate behavior. These dynamics are crucial to understand in order to come up with efficacious fraud prevention measures. The behavioral mechanisms identified by the Stop-Loss System suggested in this research can be directly targeted by means of preventive controls, which focus on the elimination of opportunities by formalization of processes and approvals; detective controls, which enhance transparency and limit rationalization through monitoring and documentation; and corrective controls, which alleviate operational pressures by creating more precise expectations and consistently enforcing them. With such a holistic solution, the fraud cycle is broken thereby making the operational environment more controlled and accountable that fits small to medium enterprises.

3. Causal Loop Diagram

The Causal Loop Diagram (CLD) explains how the risk of fraud in PT Global Intan Teknindo became a self-reinforcing loop of poor processes and informal practices. The reinforcing loop initiates with ineffective controls, including the lack of documented inquiries, unofficial communication with a vendor, the lack of the approval systems, which make employees have plenty of opportunities to circumvent procedures. The more these opportunities are piled up the more regular and fraudulent transactions are more common and easy to cover. Such events subsequently cause losses of money and disruptions in operations that limits the ability of the management to effectively keep track of the activities. The lax control also worsens the discipline of the process, thus enabling the vulnerability to become more profound and the fraud cycle to occur once again and with more severity.

The introduction of Fraud Risk Management (FRM) provides two balancing loops that will combat this cycle. The former functions by enhancing structural controls, e.g. standardized documentation, multiple approvals, separation of duties, and electronic tracking. These actions decrease the possibility of fraud and slowly stabilize the working process. The second balancing loop is the result of behavioral change: regular monitoring and enhanced accountability increase the level of compliance among employees, decrease rationalization, and promote compliance with the established procedures. The higher the compliance levels and reduction in irregularities, the greater the organizational integrity, and the less strength the reinforcing loop has. In general, the CLD below shows that fraud risks at PT Global Intan Teknindo was not an isolated phenomenon but rather a self-perpetuating cycle that can be broken through both structural and cultural interventions.

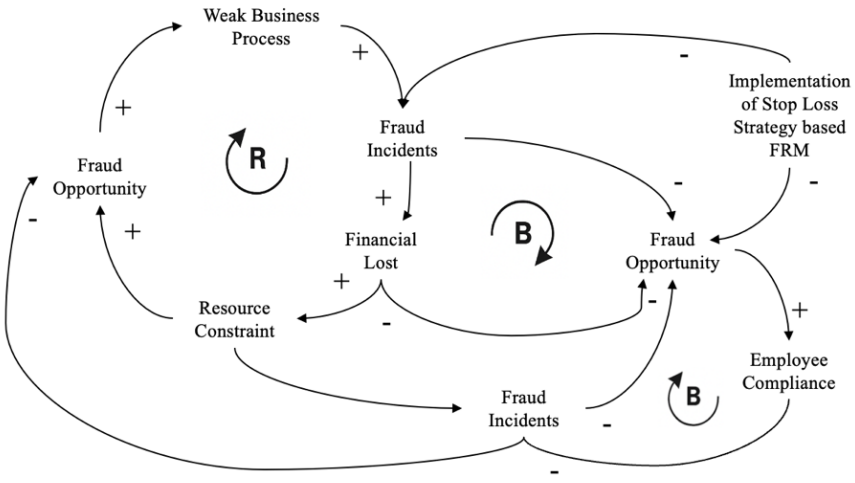

Fig 1. Causal Loop Diagram

4. Fraud Risk Management

The risk analysis of fraud at PT Global Intan Teknido indicates that a proper mitigation system needs to address structural and behavioral susceptibilities that have enabled abnormalities to be perpetuated. The organization of the system into a Stop-Loss System is based on the Fraud Risk Management (FRM) model that assists in minimizing risks of fraud, improving the level of transparency, and reinforcing governance within the organization. FRM is a multi-faceted solution that brings together preventive, detective, and corrective measures into the working process, and that fraud risks are handled in a systematic and not in a reactive manner. In the preventive aspect, the Stop-Loss System aims at removing the root causes of the opportunity to commit fraud. This involves the creation of a sharp separation of roles between sales, finance, and management so that no individual can make a complete transaction cycle individually. All inquiries, quotations, purchase orders, and invoices are standardized in documentation and all informal communication channels that used to prevail in business are eliminated. Multi-level approval, especially on quotations and payment confirmations, is introduced and limits unauthorized pricing decision-making and allows sales personnel to control financial flows. It is also suggested that the position of an Internal Controller will be used to check the completeness and accuracy of documentation prior to transactions.

These systemic improvements constitute the primary line of defense as they decrease the possibility of the fact that fraud may take place without any trace. Detective mechanisms enhance oversight through detecting irregularities at an early stage of the process. Internal audits, (scheduled and unscheduled), are performed to ensure that the details recorded are in line with the actual transactions. Digital reconciliation systems enable a management to find irregularities in the form of inconsistent PO values, unregistered invoices or over the counter payments. Monitoring dashboards are used to enhance real-time visibility and vendor and customer confirmation procedures are an external validation layer. The creation of a confidential reporting channel (whistleblowing) helps to motivate the employees/partners to report suspicious activity without the fear of retaliation and this increases the ability of the organization to detect underground misconduct. Corrective controls are used to make sure that the organization is able to take action in case an irregularity is identified.

They are updating Standard Operating Procedures (SOPs) to seal process loopholes, ensuring the disciplinary measure is administered in line with the need to enhance accountability, and follow-up reviews should be carried out to make sure that improvement is maintained. The other corrective steps are to redefine performance indicators to incorporate compliance, accuracy and integrity to generate revenue as opposed to solely concentrating on the generation of revenue. Incorporating the continuous improvement into the Stop-Loss System will allow PT GIT to avoid recurrence of incidents and over time transform the operational culture of the company based on informal and person-specific practices into standardized and transparent ones. On the whole, the Stop-Loss System based on FRM offers a well-organized and realistic fraud prevention plan, which can be adjusted to the size and specifics of PT Global Intan Teknindo. It is also a direct response to the behavioral and structural elements that have been discussed above in the analysis and presents a long-term sustainable route towards the establishment of organizational resilience. The company can also significantly minimize the risks of being exposed to fraud by incorporating preventive, detective and corrective controls into routine operations and in the process increase efficiency, precision and confidence amongst its internal and external shareholders.

IV. CONCLUSION

The conclusion of this study is that fraud risks in PT Global Intan Teknido was not caused by a particular individual behavior but rather, by the systemic weaknesses that existed in its business processes. The Business Process Mapping (BPM) findings indicate that there exist essential weaknesses at every level of transactions especially because of unofficial inquiries, unwritten communication with the vendors, unapproved quotations, unregistered purchase orders, unauthorized issuance of invoices, and customer payments to personal bank accounts. Fraud Triangle examination also indicates that the opportunity was the prevailing force, which was enhanced by operational pressure and aided by rationalizations that were based on speed, flexibility, and perceived industry standards. Causal Loop Diagram underlines a vicious cycle where weak controls allowed repeat abnormalities, which weakened controls and created more gaps in procedures. Benchmarking is used to ensure that the organizations that have organized documentations, multi-level approvals and digital monitoring face considerable reduction in fraud exposure. On the data obtained, the Stop-Loss System with the FRM provides a holistic and feasible system of reinforcing governance in PT GIT. Preventive controls, including segregation of duties, standardized documentation, approval matrices, as well as a specific Internal Controller, minimize the possibility of fraud.

Internal audits, digital reconciliation, anomaly detection, and confirmation mechanisms are some of the methods used as detective controls to increase transparency and early detection. Corrective controls such as SOP revisions, disciplinary mechanism and continuous improvement promote accountability and promote behavioral change in the long term. As a combined set, these measures can create a comprehensive system that does not only reduce the risk of fraud but also enhance the clarity of operations, accuracy and integrity of the organization. The importance of the research is in the ability to show that business process analysis can be successfully integrated with Fraud Risk Management to create a resource-efficient fraud prevention system that could be used by small companies. The results add to the general body of SME governance research by demonstrating that despite the size of small organizations, a significant severity of fraud can be

mitigated with well-organized procedures and control focused on specific aspects. The further development of work can also expand this model quantitative risk reduction, assessment of the cost-benefit consequences, or assessment of the long-term adoption results with other similar SMEs.

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