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Management Response to Human Errors and Key Controls in Banks

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Abstract: Given the significant role that banks play in the global economy and the inherent risks they encounter in their day-to-day operations, studying operational risk management in banks is crucial. The purpose of this research is to comprehend the operational risk management challenges in banks, mainly focusing on human errors and management response to them, as human factors often play an important role in operational failures. The aim of this paper is to investigate the governance cultures and operational risk management strategies of banks, to identify the gaps in risk mitigation activities and controls and to determine the improvements needed to minimize human errors. This research aims to provide prospective operational risk management solutions for banks by gathering and analysing survey data from finance sector employees worldwide as well as empirical information, making the topic practical. Factors influencing operational risk management form the basis of the qualitative method used in this study. The main findings indicate that management's attitude towards human errors and the role of risk governance structures, such as risk committees and internal control functions, have significant relationships with the reasons for human errors in banks and thus have an impact on operational risk management in banks. Banks need to examine their risk management frameworks; evaluate the standard reactions of bank management to human error, such as root cause analysis, incident investigation, and planning for corrective action; strengthen their working policies; integrate more lessons learned from sessions and training; re-evaluate their internal controls; and analyse their escalation procedures. Studying management response to human errors and key controls in banks has several practical implications for organizations. First, insights from this research can help banks enhance their risk management practices, identify their weaknesses, improve their internal controls, and put preventive measures in place to reduce the possibility and consequences of human errors. Second, a positive safety culture can be promoted by encouraging open collaboration, accountability and learning from mistakes. Third, enhancing employee improvement and training can be achieved by understanding the needs of employee development based on the insights from this study. Finally, studying management responses to human errors can help banks oversee compliance with regulatory reporting standards, investigation protocols, and corrective measure specifications.

Keywords: bank management challenges; employee mistakes; operational risk in banks; operational management perspectives.

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1. Introduction. According to this definition, operational risk is any loss, either direct or indirect, resulting from external events, people, insufficient internal processes, or systems (BCBS, 2001). The biggest banks often reserve billions of dollars to protect themselves from severe operational losses (De Fontnouvelle, 2006). Operational risk is a subject that has long been studied by researchers because it is recognized as crucial to many different sectors. Due to the constant changes in business environments, technology, and legal frameworks, operational risk remains a vital area of research. Focusing on direct losses resulting from human errors and management response to them in operational risk management within banks may provide insightful information about the financial consequences of operational failures and the impact of mitigating measures. Because human error has a major impact on operations, safety, productivity, and quality, it is a topic that is continuously important across a wide range of fields. However, there are no recent studies investigating errors from the standpoint of control mechanisms and how management responds to errors. In a previous study titled "The Reasons for Human Errors in Banks and Employees' Mindsets" (Sobanova & Kudinska, 2023), we investigated the reasons and frequencies of errors of bank employees, as well as the attitudes of staff members towards mistakes. We measured the primary causes of employee errors in banks, including fat finger error, ignorance, lack of information, lack of support from peers, inattention, employee mindset, management attitude, insufficient procedures, lack of automation, and lack of IT controls. We concluded that operational risk management in banks has been significantly affected by employee errors as well as by the way in which employees respond to those errors. Effective operational risk management requires management to pay attention not only to knowledge and records but also to staff members' attitudes and general wellbeing.

Therefore, this article aims to analyse the responses of bank management to human errors and key controls, mainly procedures and corrective action planning, including incident investigation, root cause analysis, escalation, and registration of mistakes, to examine how banks integrate lessons learned from human errors into their risk management frameworks and work with continuous improvement and to identify the weaknesses in banks' operational risk management governance structures. This study's primary goal is to investigate management response to human errors and analyse key controls in banks. The following are the research questions: What is the role of management and operational risk governance structures in banks? Do banks have proper escalation and registration procedures for mistakes? How do banks work with human errors? What are the shortcomings in banks' operational risk management frameworks?

The structure of the paper includes a brief introduction to the subject and a literature review of the studies that are important to the publication and that offer pertinent background information about the topic. Furthermore, the publication provides comprehensive details regarding the methods' implementation. The research results section then describes the information that was acquired and the results of the tests that were performed. The paper concludes with an explanation of the hypotheses, an evaluation of the research's findings and their importance, a summary of its limitations, and suggestions for further research.

2. Literature Review. Researchers define human errors differently, but they all possess similar characteristics. Human errors are accidental behaviours or omissions by people who lead to different consequences (Sandal et al., 2018). In the context of banking and operational risk management, human error can occur at any point during financial operations and, if uncontrolled, can have severe consequences. Manual errors in banking can manifest in various forms, such as data entry mistakes (fat fingers), procedural errors, cognitive biases such as overconfidence or confirmation bias, and communication errors (Klein, 1993). Klein, a cognitive psychologist specializing in decision-making, has researched how people make decisions under pressure and how insufficient mental models or cognitive biases can lead to mistakes. The reasons for human errors differ and include lack of knowledge, lack of attention, lack of documentation and miscommunication (ORX, 2022; Sobanova & Kudinska, 2023; Klein, 1993). A study conducted by James Reason, a prominent psychologist known for the "Swiss cheese model" of accident causation, focused on how human behaviour, cognitive processes, and organisational factors interact to cause mistakes and accidents (Reason, 1990). Reason's "Swiss cheese model" of accident causation shows that even though there are numerous layers of defence between risks and accidents, each layer has weaknesses that, when they match, might let the accident happen. Initially, this model drew attention to the health care system, but subsequently, Reason's model evolved into a common language for comprehending complicated accidents. Another significant contribution to the understanding of human errors was made by Donald Norman, a cognitive scientist and usability specialist with experience in the design of everyday products and systems. In the context of technology and human-computer interaction (Norman, 2013), Norman's study highlights the significance that design plays in minimizing human error and enhancing user experience. According to Norman, interfaces, computers, and other devices should be user friendly and functional. Two gulfs should be avoided: the gulf of performance

and the gulf of evaluation. Nancy Leveson, an engineer and safety researcher whose work focuses on system safety, accident analysis and risk management, emphasizes the importance of continual improvement and proactive risk management in preventing human errors and ensuring system safety (Levenson, 2016). Additionally, in his studies, Leveson claimed that personnel training and education, as well as information systems for error logs, are crucial for preventive risk management activities and that management should serve the remainder of the consequences and highlight the need to proactively correct and prevent problems (Levenson, 2016). "Error orientation" relates especially to how individuals react to and consider mistakes (Rybowiak, 1999) at work. For example, one way to cope with mistakes would be to hide them, another to admit them so that you can deal with it and learn from it. Scholars have studied the connection between individuals' levels of work participation and their response to errors (Matsuo, 2019; Maden, 2015; Sobanova & Kudinska, 2023). Researchers have claimed that learning goal orientation affects employee behaviour, workplace creativity, and job engagement (Matsuo, 2019; Bipp & Demerouti, 2015; Wrzesniewski & Dutton, 2011). David D. Woods is known for his research on cognitive systems engineering and has contributed to understanding how humans interact with complex systems and how errors can emerge from these interactions. In his book, Woods supports control theory (Woods, 2010), which was initially presented by James Clerk Maxwell in the 19th century as the theoretical foundation for the operation of governors (Maxwell, 1868). An accidental model based on control theory analyses how interactions between system components cause accidents; rather than focusing on a single aspect, this model identifies how risky technology is organized or operated in the system that led to the accident (Woods, 2010). Safety and risk management are considered control problems. Accidents occur when components fail, external disturbances occur, or interactions between layers and components are not appropriately managed. Safety is harmed by complexity. To progress, one must develop the ability to handle the level of complexity that results from using limited assets to obtain higher capacity levels (Woods et al., 2006). The enormous quantity of research on operational risk management strategies is the primary driving force behind the results of this study. Unfortunately, no current studies have investigated errors from the key control perspective of bank management or how employees work with mistakes. To close the gaps in the literature, this study looks at operational risk management frameworks, analyses the procedures, mainly escalation and registration of mistakes in banks, and examines the ways bank employees cooperate with their management work on continuing improvements towards errors and developing personnel.

The research hypotheses:

H1: Banks need to enhance operational risk controls, and management needs more practices in the context of human errors.

H2: There is a relationship between operational risk management control variables and employee age and working experience.

3. Methodology and research methods. This study uses the survey method. This method was chosen because it is excellent for gathering comprehensive data that displays the opinions, facts, experience, and mindsets of respondents. The survey was created using the QuestionPro program, and it was distributed via LinkedIn with the help of Amazon Mechanical Turk, a crowdsourcing platform that allows academics to assign labor-intensive tasks to distributed workers online. The SPSS Statistics tool was utilized to analyse the data. As the research focuses on operational risk management in banks, the population consists primarily of people who are employed globally in the financial industry, particularly bank workers. Since we have not focused on the duties or positions held by bank personnel, the questionnaires were designed for all employees, regardless of previous experience, status, or responsibility. The survey was developed to be simple to use and straightforward to promote meaningful responses from participants. The survey was conducted over a three-month period, starting in November 2023 and ending in February 2024. This period allowed for comprehensive data collection, ensuring that a wide range of respondents had the opportunity to participate. The survey consists of twelve questions based on coding numbers with potential comprehensive responses. The questions were constructed using information from the Operational Risk Data eXchange Association (ORX, 2022), literature reviews, personal observations, and the proposed model. Two main constructs are used for this study. These are dependent and independent constructs. The independent construct of this study is age and working experience, and the dependent construct is operational risk management practices, key controls, mainly working with mistakes. These practices are subdivided into four variables: the escalation of mistakes, the registration of mistakes, training and lessons learned activities and continuous improvement of the processes. The dependent variables were chosen in accordance with the abovementioned literature review (Table 1).

Table 1. Definition and measurement of variables for the proposed model

Variables	Measurement	Sources
Escalation of mistakes	Five (5) point likert scale	(Maden, 2015; Sobanova, J., Kudinska, M., 2023; Rybowiak, 1999; Woods D., 2010);
Registration of mistakes	Five (5) point likert scale	(Leveson, 2011; ORX, 2022; Woods D., 2010);
Training of personnel & Lessons learned activities	Five (5) point likert scale	(Leveson, 2011; Reason, 1990; Matsuo, 2019; Bipp, T. & Demerouti, E., 2015; Wrzesniewski, A. & Dutton, J. E., 2011);
Continues improvement	Five (5) point likert scale	(Norman, 2013; Leveson, 2011; Woods D., 2010; Woods, D.D., Patterson, E.S., and Cook, R.I., 2006);

Sources: developed by the authors.

The variables chosen above also consider the research findings (Hale, 2011; Trusova et al., 2019) that any organization must have a robust internal control system to protect against internal control process failure. Since every variable considered in Table 1 is included in the survey, the model enables us to comprehend operational risk management practices, mainly working with human errors in banks. The process of addressing mistakes includes questions about sharing mistakes with colleagues, escalating errors to management, and documenting proper escalation procedures through all layers of the organization, as this process is essential for effective communication, issue resolution, and decision-making. Furthermore, the registration of mistakes, training and lessons learned for employees and continuing improvements can increase the number of questions about improving systems and processes to mitigate human errors. Every question has an identical set of options measured on the five-point scale, where Strongly Disagree = SD, Disagree = D, Agree Moderately = AM, Agree = A, Strongly Agree = SA. The characteristics of the respondents are displayed via a descriptive statistical tool. The measurement results of the model are shown using an inferential statistical tool. After that, the hypotheses were tested, and the data were assessed using statistical techniques such as frequencies and analysis of variance (ANOVA). This analysis was chosen because it can determine whether a relationship exists between one independent variable and other dependent variables.

4. Results and discussion.

4.1. Rate of response, missing values, and normality test of the distribution

An overview of the survey's distribution and the quantity of completed questionnaires is shown in Table 2 below. Of the 587 questionnaires distributed, 571 (97.3%) had a response. Every item in the recovered questionnaire was found to be valuable after it passed the data screening. Therefore, 97.3% of the total number distributed were filled out and returned for analysis. The number of responses was found to be sufficient for statistical confidence (Yun & Trumbo, 2000). Hair et al. (2014) suggested that 10% should be considered an appropriate limit for missing data by researchers and that missing values should be examined. The missing data components were considered sufficient in the dataset to be taken into consideration based on descriptive univariate statistics (MVA test). Two.7% of the questions (Q1-Q12) had complete answers. Since one of the primary issues with data processing is missing values, the collected data were checked and verified.

Table 2. Summary of response rates and case processing methods

Valid cases		Missing cases		Total	
N	Percent	N	Percent	N	Percent
571	97.30%	16	2.70%	587	100.00%

Sources: developed by the authors.

Since one of the primary issues with data processing is missing values, the collected data were checked and verified (Tabachnick & Fidell, 2013). To ascertain whether the variables were assumed to be normally distributed, the collected data were screened and examined for normality (Table 3).

Table 3. Tests of normality distribution

	Kolmogorov-Smirnov[a]			Shapiro–Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q1	0.237	571	0.000	0.862	571	0.000
Q2	0.247	571	0.000	0.869	571	0.000

	Kolmogorov-Smirnov[a]			Shapiro–Wilk		
Q3	0.239	571	0.000	0.876	571	0.000
Q4	0.258	571	0.000	0.874	571	0.000
Q5	0.241	571	0.000	0.878	571	0.000
Q6	0.221	571	0.000	0.880	571	0.000
Q7	0.239	571	0.000	0.866	571	0.000
Q8	0.281	571	0.000	0.862	571	0.000
Q9	0.247	571	0.000	0.871	571	0.000
Q10	0.245	571	0.000	0.876	571	0.000
Q11	0.264	571	0.000	0.858	571	0.000
Q12	0.247	571	0.000	0.873	571	0.000

Sources: developed by the authors

Both the Kolmogorov–Smirnov and Shapiro–Wilk tests in SPSS reported a significance value of 0.000, meaning that $p < 0.001$ proved that we excluded the hypothesis that the data were normally distributed, as the data did not distribute normally.

4.2. Respondents' characteristics

The respondents' characteristics cover age groups, working experience in the finance sector, and geographic distribution (Table 4). The results show that most of the respondents who participated in this research ranged in age from 35-44 years (49.9%), indicating that the survey participants were mature employees and probably had relevant backgrounds. A total of 37.5% of the participants were aged 25 to 34 years, and 7.8% of the respondents were aged 18 to 24 years. A total of 2.7% of the respondents were 45 to 54 years old, and respondents older than 55 years represented 2% of the total respondents. Additionally, according to the extracted data, 48.4% of 284 respondents had six to ten years of work experience in the financial industry, while 146 respondents, or 24.9% of all respondents, had worked in the area for fewer than five years. Finally, 26.4% had over 11 years of experience working in the finance industry. Specifically, 90.3% of the respondents were from the USA, 3.6% were from the EU, 5.6% were from India, 0.3% were from Canada, and 0.2% were from Brazil and Mexico.

Table 4. Descriptive statistics of the respondents

Parameters		**Frequency** N = 587	**Percent**
Age	18-24	46	7.8
	25-34	220	37.5
	35-44	293	49.9
	45-54	16	2.7
	55-64	10	1.7
	Above 64	2	0.3
Working experience	0-5 years	146	24.9
	6-10 years	284	48.4
	11-15 years	124	21.1
	16-20 years	21	3.6
	21 years and above	10	1.7
Country code	BR	1	0.2
	CA	2	0.3
	CZ	1	0.2
	DE	1	0.2
	FI	1	0.2
	GB	6	1
	GR	1	0.2
	HK	1	0.2
	HU	1	0.2
	IN	33	5.6
	LV	6	1
	MG	1	0.2
	MX	1	0.2
	US	530	90.3

Sources: developed by the authors.

Therefore, the information gathered regarding the distribution of ages and levels of work experience is appropriate because the respondents had broad and skilful employment histories and a variety of work experience. Considering the variables in the model described in the methodology above, Table 5 provides the characteristics of the responses.

Table 5. Controls in banks, working with human errors, structure of responses, percent, %

N= 587/ Percent= 100	**Questions**	**SD**	**D**	**AM**	**A**	**SA**
Escalation of mistakes	Do you share your mistakes with your colleagues to learn from mistakes	0.9	7	41.1	40.4	8.9
	Do you escalate your mistakes to your management?	0.7	8.3	37	42.2	9.9
Registration of mistakes	Do you have a proper escalation procedure?	1.4	6.8	33.9	41.6	14.5
	Do you register your mistakes?	1.2	10.1	33.6	43.4	9.9
	Do you have a system where you log your mistakes?	1.4	8.3	35.4	41.2	11.8
	Do you know what the error ratio is in your organization/team	1	7.8	36.3	38.2	14.8
Training & Lessons learned activities	Did you have a knowledge training when started in your position?	1	5.5	36.5	41.4	13.1
	Do you receive constructive feedback from your manager?	0.5	8	28.8	47.7	12.4
	Do you have lessons learned sessions?	0.9	6	31.7	42.9	16
Continues improvement	Do you work with continues improvement?	0.9	7.5	33	41.9	14
	Do you maintain /follow up on your mistakes and improve the process to decrease human errors?	0.2	5.6	33.2	45.7	12.6
	Do you automate your processes where you have a lot of mistakes?	0.9	6.8	33.2	42.4	14

Sources: developed by the authors.

The findings indicate that most respondents agree (49.3%) that they share their mistakes with their colleagues to learn from mistakes, although 7.9% of respondents disagree about this statement. Regarding the escalation of mistakes to their managers, 52.1% of respondents agreed with the statement, and 9% fully disagreed. The respondents also had similar opinions about proper escalation procedures in their organizations. A total of 56.1% of the respondents had proper escalation procedures, and 8.2% did not. Error reporting, commonly referred to as incident reporting or the registration of mistakes, is an essential component of organisational learning and development. A total of 53.3% of respondents agreed that they registered their mistakes; moreover, 53% of respondents knew the error ratio in their organizations, and 53% agreed with the statement that they had systems for reporting their mistakes. However, 11.3% of respondents did not report their mistakes, 8.8% did not know the error ratio in their organizations, and 9.7% of respondents did not have systems for reporting their mistakes. A total of 54.5% of respondents claimed that they had knowledge training when they started in their positions, and 60.1% received constructive feedback from their managers, although 8.5% of respondents did not have training, and 6.9% gained helpful criticism. A total of 55.9% of respondents worked with continuous improvement, and 58.3% followed up on their mistakes to improve their processes and decrease their mistakes. However, 8.4% of respondents did not strive for constant improvement, and 5.8% of respondents did not enhance their processes. Regarding automation of the processes, 56.4% agree with the statement that they automate the processes with many mistakes, but 7.7% do not work with automation on such processes. Table 6 shows the descriptive statistics of the responses.

Table 6. Descriptive statistics of the responses

Parameters	**SD**	**D**	**AM**	**A**	**SA**
Mean	0.91667	7.30833	34.47500	42.41667	12.65833
Standard Error	0.09911	0.37968	0.89181	0.70301	0.63419
Median	0.90000	7.25000	33.75000	42.05000	12.85000
Standard Deviation	0.34333	1.31527	3.08931	2.43528	2.19688
Sample Variance	0.11788	1.72992	9.54386	5.93061	4.82629

Sources: developed by the authors.

Statistics indicate that 42.42% of respondents agree and 12.66% strongly agree that they have operational risk management controls in their organizations, provided variables in the proposed model above (mean, median). However, 8.23% of respondents disagreed with this statement. A total of 34.48% of respondents moderately agreed, meaning that they had doubts about controls in their organizations. Data points that are close to the mean have low variance coefficients and low standard deviations (Navarro, 2022).

The culture of an organization has a significant impact on operational risk, and effective internal governance procedures—such as monitoring, reporting to top management, and established controls—are essential to maintaining transparency in the banking industry. One of the foundations of a strong and effective company culture is encouraging staff members to own their errors (Erzurumlu & Avcı, 2021). Creating an atmosphere where individuals feel free to take responsibility for their errors can result in a more robust and accountable enterprise that is better able to control risks and enhance performance. The results proved that we accepted hypothesis H1 that banks need to enhance operational risk controls and that management needs more practices in the context of human errors.

4.3. Restatement of hypothesis H2

To investigate the significance of the parameters outlined in the model, we applied analysis of variance (ANOVA) to evaluate the second hypothesis of this study. As stated in section 3.3, the respondents' age and prior job experience in the finance industry are regarded as independent criteria. The results of the examined factors are provided in Table 7. A significance level of Sig < 0.05 indicates a 95% factor impact on the outcome, while a Sig < 0.01 indicates a factor impact of 99%.

Table 7. Analysis of variance. Dependent variables and examined factors

Dependent variables		Factors	
		Age Sig.	**Working experience Sig.**
Escalation of mistakes	Do you share your mistakes with your colleagues to learn from mistakes	0.013	0.000
	Do you escalate your mistakes to your management?	0.028	0.694
	Do you have a proper escalation procedure?	0.013	0.001
Registration of mistakes	Do you register your mistakes?	0.117	0.229
	Do you have a system where you log your mistakes?	0.098	0.005
	Do you know what the error ratio is in your organization/team	0.000	0.001
Training & Lessons learned activities	Did you have a knowledge training when started in your position?	0.737	0.238
	Do you receive constructive feedback from your manager?	0.045	0.258
	Do you have lessons learned sessions?	0.678	0.401
Continues improvement	Do you work with continues improvement?	0.781	0.037
	Do you maintain /follow up on your mistakes and improve the process to decrease human errors?	0.374	0.845
	Do you automate your processes where you have a lot of mistakes?	0.011	0.250

Sources: developed by the authors.

The results show that age and working experience partly impact all the dependent variables. This means that age and working experience factors mostly influence the increase in the number of mistakes and the number of mistakes. Therefore, we partly agree with hypothesis H2 that there is a relationship between operational risk management control variables and the provided independent variables for the model, including the age and experience of the employees. Analysing the sharing of mistakes with colleagues based on age factors can provide insights into how different generations approach error communication and collaboration in the workplace (Table 8).

Table 8. Analysis of the likelihood of sharing mistakes with colleagues based on age

Do you share your mistakes with your colleagues to learn from mistakes	**Age**					
	18-24	**25-34**	**35-44**	**45-54**	**55-64**	**Above 64**
SD	6.52%	0.92%	0.00%	0.00%	0.00%	0.00%
D	6.52%	5.07%	9.09%	6.67%	0.00%	0.00%
AM	28.26%	40.55%	47.90%	13.33%	10.00%	0.00%
A	36.96%	44.70%	36.01%	73.33%	70.00%	100.00%
SA	21.74%	8.76%	6.99%	6.67%	20.00%	0.00%

Sources: developed by the authors.

The results show that older employees share their mistakes with their colleagues more often than younger employees do. Younger employees may be more accustomed to open and transparent communication, including sharing mistakes with colleagues. Employees of all ages are more willing to admit mistakes in an environment that promotes psychological safety and open communication.

Company culture can significantly influence employees' willingness to share mistakes with colleagues. The results (Table 9) show that employees who have more than 11 years of experience are more inclined to be open and share mistakes with their colleagues. This is probably because a person becomes more mature and self-assured as they gain more years of experience. Employees with experience may be less worried about how other people see their faults and more intent on solving problems and growing from them. Additionally, employees who have been in the workforce for a longer period may have encountered and overcome more challenges and failures throughout their careers. They might therefore be more comfortable accepting of failure and less afraid of admitting mistakes.

Table 9. Analysis of the sharing of mistakes with colleagues based on the working experience factor

Do you share your mistakes with your colleagues to learn from mistakes	Working experience				
	0-5 years	6-10 years	11-15 years	16-20 years	21 years and above
SD	2.78%	0.35%	0.00%	0.00%	0.00%
D	11.11%	3.53%	11.48%	0.00%	11.11%
AM	46.53%	40.99%	45.08%	5.56%	22.22%
A	31.25%	47.35%	34.43%	66.67%	44.44%
SA	8.33%	7.77%	9.02%	27.78%	22.22%

Sources: developed by the authors.

The situation of escalation procedures in the organization was similar (Table 10). The results prove that senior-level employees have extensive experience and expertise in their respective fields and are capable of handling complex issues and properly escalating accidents.

Table 10. Analysis of escalation procedures based on the working experience factor

Do you have a proper escalation procedure?	Working experience				
	0-5 years	6-10 years	11-15 years	16-20 years	21 years and above
SD	4.17%	0.71%	0.00%	0.00%	0.00%
D	6.94%	6.71%	9.02%	0.00%	0.00%
AM	45.83%	30.39%	33.61%	27.78%	11.11%
A	31.94%	45.94%	44.26%	44.44%	66.67%
SA	11.11%	16.25%	13.11%	27.78%	22.22%

Sources: developed by the authors.

Entry-level employees probably do not know about their escalation procedures; therefore, it is crucial to provide step-by-step instructions for escalating issues for entry-level employees. We compared the survey results with those of previous research in 2023, and we outlined the key aspects and findings. In previous research, we concluded that the attitudes of employees about their mistakes and human errors have a large impact on operational risk management in banks. The primary causes of employee errors in banks were measured using eight dependent variables (fat finger error, lack of knowledge, lack of support from coworkers, lack of attention, employee mindset, management attitude, lack of instructions/procedures, lack of automation and IT controls) and three independent variables (age, working experience, working environment). These factors support the primary operational risk management components in banks: people risk management, internal process risk management, and technology risk management. Every variable was determined to be significant. In this survey, which was conducted in 2024, we focused on management reactions to human errors, management activities and controls to minimize errors based on the proposed model. As in the previous survey, the necessity of enhancing operational risk management activities and reviewing controls in banks is acknowledged by both management and staff. This emphasizes the importance of a robust risk management framework to ensure the stability and efficiency of banking operations.

5. Conclusions. To fulfil the study's objectives, the authors carried out quantitative research by developing a survey, gathering information from 571 respondents in the global financial sector and testing two hypotheses. Based on the results presented in the preceding chapter, organizational governance and

management's reactions to human mistakes have a substantial effect on operational risk management in banks. Four dependent variables related to human errors (escalation, registration, training and learning and continuous improvement) were used to measure operational risk management controls in banks. Hypothesis H1 was tested and proved to be true; banks need to enhance operational risk controls, and management needs more practices in the context of human errors. The research findings show that the escalation of mistakes and proper escalation procedures are not common practices in all organizations. By taking proactive steps, encouraging a culture of openness and learning management can reduce errors in organizations. Moreover, effective management not only mitigates negative consequences but also creates an atmosphere that is more resilient and flexible. Another finding concerns the critical component of managing and mitigating the impact of mistakes, the error reporting process. There are still organizations that do not have such a process and do not have systems for reporting their mistakes. Therefore, some respondents did not report their mistakes and did not know the error ratio in their organizations. To prevent errors, detect and address problems in the early stage, and promote a continuous improvement culture, effective error reporting is crucial. By implementing a robust error reporting process, organisations can reduce risks and improve overall performance and resilience. Another finding indicates the same situation with knowledge training and constructive feedback; some respondents claimed that they did not have training and did not receive helpful criticism. These components are essential to professional growth, both individuals and teams, in enhancing performance, fixing errors, and developing new abilities. Regarding continuous improvement and follow-up on their mistakes to improve the processes and decrease the mistakes, some of the respondents did not strive for constant improvement and did not enhance their processes. Regarding automation of the processes, only half of the respondents confirmed that they automated the processes with many mistakes. In the rapidly evolving financial market, banks must continually strive for productivity, creativity, and increased client experience. Embracing continuous improvement and automation is vital for maintaining competitiveness and meeting regulatory obligations.

Hypothesis H2 was also tested but only partially proved. This suggests that while some aspects or elements of H2 were supported by the data or evidence, there were likely other components or conditions that were not fully validated. Another finding of the study is that while an employee's age may have an impact on how they share mistakes with coworkers, creating a culture of psychological safety, promoting cross-generational learning, and leveraging technology can help bridge generational differences and facilitate more effective communication and collaboration in the workplace. While employees with more experience may be more inclined to share mistakes openly, it is important to understand that individual attitudes and behaviours can vary substantially depending on personality, organisational culture, and other factors. Experienced employees may be more willing to disclose their mistakes candidly. A culture of transparency, confidence, and continuous learning can be beneficial for workers of all backgrounds and contribute to a more creative and resilient work environment.

A notable limitation of our study is related to the demographic composition of the survey respondents obtained from the Amazon Mechanical Turk platform. The individuals utilizing the service during the research period largely comprised office workers from the United States of America. Therefore, future investigations should profit from a more expansive and diverse participant pool from various geographies. Another shortcoming of the present research is that it is related to indirect losses of operational risk. Considering this constraint, it is necessary for future research to turn its attention toward external events, such as terrorist attacks, government changes and natural disasters. Investigating these limitations would offer more comprehensive knowledge of the complicated relationship between direct and indirect events of operational risk. By studying and resolving these challenges, academics can develop a broader proactive approach to tackling issues of operational risk management.

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Управління реакцією на людські помилки та ключові контрольні показники функціонування в банках

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Враховуючи значну роль, яку банки відіграють у глобальній економіці, та ризики, з якими вони стикаються у своїй щоденній діяльності, дослідження управління операційними ризиками в банках є надзвичайно важливим. Метою цього дослідження є зрозуміти виклики управління операційними ризиками в банках, зосереджуючи увагу головним чином на людських помилках та реакції керівництва на них, оскільки людські фактори часто відіграють важливу роль в операційних невдачах. Завданням цієї статті є вивчення культур управління та стратегій управління операційними ризиками в банках, визначення прогалин у заходах з пом'якшення ризиків і контролю та визначення необхідних покращень для мінімізації людських помилок. Це дослідження має на меті надати перспективні рішення для управління операційними ризиками в банках шляхом збору та аналізу даних опитувань працівників фінансового сектору по всьому світу, а також емпіричної інформації, роблячи тему

практичною. Фактори, що впливають на управління операційними ризиками, формують основу якісного методу, використаного в цьому дослідженні. Основні висновки вказують на те, що ставлення керівництва до людських помилок та роль структур управління ризиками, таких як комітети з ризиків та функції внутрішнього контролю, мають значний вплив на причини людських помилок у банках та, відповідно, на управління операційними ризиками. Банкам необхідно переглянути свої рамки управління ризиками, оцінити стандартні реакції керівництва на людські помилки, такі як аналіз першопричин, розслідування інцидентів та планування коригувальних дій; зміцнити свої робочі політики; інтегрувати більше уроків з тренувальних сесій; переоцінити свої внутрішній контроль та проаналізувати процедури ескалації. Дослідження реакції керівництва на людські помилки та ключові контролі в банках має кілька практичних наслідків для організацій. По-перше, висновки цього дослідження можуть допомогти банкам покращити практики управління ризиками, виявити свої слабкі місця, покращити внутрішній контроль та вжити заходів для зменшення ймовірності та наслідків людських помилок. По-друге, сприяння позитивній культурі безпеки можна досягти за рахунок заохочення відкритої співпраці, відповідальності та навчання на помилках. По-третє, покращення підготовки та розвитку працівників можна досягти, розуміючи потреби у їхньому розвитку на основі отриманих результатів. Нарешті, вивчення реакції керівництва на людські помилки може допомогти банкам контролювати дотримання стандартів регуляторної звітності, протоколів розслідування та специфікацій коригувальних заходів.

Ключові слова: виклики управління банком; помилки працівників; операційний ризик у банках; перспективи операційного управління.