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**DEVELOPMENTS AND PERSPECTIVES
OF THE BANKING INDUSTRY
FROM EMERGING ASIAN COUNTRIES.
EMPIRICAL RESEARCH ON INDIA**

Summary of the PhD thesis

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CONTENTS

LIST OF ABBREVIATIONS	6
INDEX OF TABLES	7
INDEX OF FIGURES	10
INTRODUCTION	11
I. CONCEPTUAL APPROACHES TO THE BANKING INDUSTRY IN ASIAN EMERGING COUNTRIES	22
1.1 General considerations on the banking system and the banking industry	22
1.2 Examination of countries/economies in Asia against certain internationally recognized classification criteria	23
1.3 Considerations on Asian banking systems. Developments and perspectives	28
1.3.1 <i>Banking system in Indonesia</i>	33
1.3.2 <i>Banking system in Malaysia</i>	37
1.3.3 <i>Banking system in Philippines</i>	46
1.3.4 <i>Banking system in Singapore</i>	48
1.3.5 <i>Banking system in Thailand</i>	51
1.3.6 <i>Banking system in South Korea</i>	54
1.3.7 <i>Banking system in Japan</i>	58
1.3.8 <i>Banking system in China</i>	62
1.4 Assessment of the characteristics of the banking industry in India	64
II. MEASURING THE EFFECTIVENESS OF SIGNALS IN AN EARLY WARNING SYSTEM FOR FINANCIAL CRISES. CASE STUDY FOR SOUTHEAST ASIA	87
2.1 Introduction	87
2.2 Analysis of relevant literature	89
2.3 Study objectives and research methodology	92
2.4 Considerations on methods based on signal extraction	94
2.5 Dissemination of empirical results	99
2.6 Conclusions of the empirical study	112
III. THE IMPACT OF THE DEMONETISATION PROCESS IN THE YEAR 2016 ON THE INDIAN FINANCIAL INDUSTRY. EMPIRICAL CASE STUDY	116
3.1 Introductory aspects	116
3.2 Study of specialized literature	119
3.3 The efficient markets hypothesis and its implications in the context of the demonetization process in India	126
3.4 Research methodology	134
3.4.1 <i>Study objective and research hypotheses</i>	134
3.4.2 <i>Statistical data collection and econometric approach</i>	134
3.5 Analysis and interpretation of empirical results	136
3.6 Opinions and conclusions on the implications of the demonetization process in India on financial market behavior	147

IV.	RECENT DEVELOPMENTS IN INDIA'S BANKING INDUSTRY. EMPIRICAL ANALYSIS	152
4.1	Evaluation of non-performing bank assets management strategies.	152
4.1.1	<i>Introduction</i>	152
4.1.2	<i>Study of specialized literature</i>	153
4.1.3	<i>Analysis of primary data and empirical results</i>	158
4.1.4	<i>Dissemination of other preventive bank management strategies and the overall implications</i>	177
4.1.5	<i>Conclusions of the empirical study</i>	179
4.2	Analysis of the evolution of non-performing agricultural loans	181
4.2.1	Introduction	181
4.2.2	Study of specialized literature	182
4.2.3	Research methodology and data analysis	184
4.2.4	Empirical results	186
4.2.5	Conclusions of the empirical study	194
V.	EMPIRICAL RESEARCH ON THE PROSPECTS OF THE INDIAN BANKING INDUSTRY	196
5.1	Study regarding the impact of banking activity digitalisation on the development of micro, small and medium-sized enterprises (SMEs)	196
5.1.1	<i>Introduction</i>	196
5.1.2	<i>Synthesis of specialized literature</i>	199
5.1.3	<i>Empirical analysis based on the development of hypotheses</i>	203
5.1.3.1	<i>Easiness in accepting payments from clients or debtors</i>	203
5.1.3.2	<i>Easiness of payments to suppliers/creditors</i>	204
5.1.3.3	<i>Easiness in managing business expenses</i>	204
5.1.3.4	<i>Time saving</i>	204
5.1.3.5	<i>Absence of the need to use cash for commercial (business) purposes</i>	205
5.1.3.6	<i>Without the possibility to occur criminal actions of misappropriation, embezzlement or theft of cash</i>	205
5.1.3.7	<i>Easiness of application and approval of short-term loan or overdraft</i>	206
5.1.3.8	<i>Benefit of cash refund or discount regarding digital banking operations</i>	206
5.1.4	Research methodology	206
5.1.5	Empirical results	208
5.1.6	Conclusions of the empirical study	216
5.2	Assessing farmers' perception of agricultural financing	218
5.2.1	Conceptual approaches to agricultural finance	218
5.2.2	Study of specialized literature	222
5.2.3	Applied research methodology and empirical results	223
5.2.4	Opinions and conclusions	234
	FINAL CONCLUSIONS, CONTRIBUTIONS AND FURTHER DEVELOPMENTS	
	BIBLIOGRAPHY	
	ANNEXES	

The strength of an economy depends on the strength and efficiency of the financial system, which in its turn depends on a sound and solvent banking system. These characteristics show us that the banking industry has effectively placed savings in productive sectors and is able to meet its obligations to depositors. Most economies in Asia are included in the category of emerging countries having banking systems and emerging or developed financial markets. Emerging Asia, being the fastest growing region globally, has emerged as a new growth pole of the world economy. With its robust growth, developing Asia has provided another *engine of growth* for the world economy in the moment when traditional markets have faltered. The economic growth of the Asian region over the past decade has been spectacular, supported by policies to promote export-oriented industrialization, while mobilizing a high level of savings. India is one of the emerging countries in Asia, on the example of which I have carried out most of the empirical studies included in this PhD thesis.

The importance of the banking industry in achieving strong, sustainable and balanced global growth seems crucial more than ever, as persistent weakness in advanced economies threatens global economic and financial stability, especially after periods of crisis. Risks remain high in terms of increased budget deficits, sovereign debt burden and incomplete restructuring of households and the banking sector in Europe and the United States (US). Given a prolonged weakness in advanced economies, it is essential that emerging (developing) economies in Asia strengthen their own domestic demand for sources of growth.

Financial sector reforms following the Asian financial crisis in the last decade of the last century focused on the rehabilitation and recapitalisation of banks, at the same time as modernising prudential rules and regulations. Strong economic growth and profits strengthened banks' balance sheets, reduced the level of non-performing loans and improved their resilience to external shocks, as evidenced by the global financial crisis of 2007-2008.

Underdeveloped financial infrastructure, combined with the lack of an adequate legal and regulatory framework, has long hindered the effective functioning of the emerging Asian banking industry. Basic financial infrastructure has been lacking in many developing economies in the region. But fast-growing middle-income economies – for example, India, Indonesia, the Philippines, Thailand -have strengthened their financial infrastructure over the past decade, such as electronic payment systems, credit information bureaus and guarantee registries. This has helped to significantly increase the efficiency of banking operations and customer confidence in the banking industry. However, the emerging Asian banking and financial markets remain largely fragmented, hindering the deepening and expansion of

regional financial markets and services and thus effectively forcing the region's economies to mobilize for its high investment needs.

The recent Covid-19 pandemic has given even more importance to the banking industry, as proper financing policies have helped a lot, especially the smaller businesses affected during the pandemic, with banks providing credit assistance and debt restructuring to their customers. Moreover, the health pandemic has caused a significant change and an obvious orientation of customers towards digital banking worldwide. People are increasingly using online and mobile channels instead of visiting bank branches. For banks, this was and is both a challenge and an opportunity. With new innovative products and services, they try not only to follow trends, but also to establish them.

Traditional banks have expanded their online banking and mobile banking services and launched better and more customer-friendly applications. The method in which the traditional banks will cope with the growing digital competition, and to what extent digital banks can and will replace traditional banks, may be another direction of research that we will possibly approach.

Analyzing the literature on the banking industry, we noticed that it was and still is one of the most interesting research areas, with numerous descriptive and quantitative studies on banking institutions.

The current PhD thesis -"*Developments and perspectives of the banking industry in emerging Asian countries. Empirical Research on India*", in our opinion, provides a complex, rigorously documented and up-to-date image for international banking research and practice, and its title announces *research motivation, research purpose* and confirms, through the efforts of Asian central banks as well as of all credit institutions that make up the respective banking systems and aiming at the transition to new business models in digital banking, *the topicality of the theme*.

The challenge for choosing the Indian banking industry as a support for the research carried out in this PhD thesis has some arguments that we summarize further. India has an extremely large population, being in fact the second most populous country in the world, immediately after China, being characterized by a very extensive area (it ranks seventh worldwide), a fascinating and very diverse culture, but also extreme differences with regards to income, which are marked between its regions, the extreme poverty being a fairly frequent phenomenon. But the most important aspect was related to the peculiarities of the banking system in India, significantly different from that of other Asian countries due to the unique geographical, social and economic characteristics of this country.

The *Indian banking industry* has gone through a complex phase of rapid change generated by financial sector reforms, which have been implemented in stages. The current transformation process should be seen as an opportunity to transform India's banking system into a solid, strong and vibrant system, able to play its role effectively and on its own, without imposing any financial burden on the government in its support.

India's banking system is dominated by government-owned or so-called *public sector banks*, which represent about 60% of the banking system's assets. Since mid-2010, these banks have been impacted by non-performing loan (NPL) problems and low capital levels. Over the past two decades, private sector banks have become more prominent and generally have more sustainable (healthy) balance sheets with lower rates of non-performing loans, although some private banks have failed in recent years. Foreign banks are currently in the strongest financial position, but comprise only 7% of the assets of the commercial banking system.

The *purpose of our research* was to analyze the developments and perspectives of the emerging Asian banking industry by empirically testing the effectiveness of signals in an early warning system for financial crises, as well as, following the choice of a country in this area, highlighting, through research empirical changes in India with regard to:

- a) the impact of demonetisation on the financial industry;
- b) assessment of management strategies for non-performing bank assets;
- c) analysis of the evolution of non-performing agricultural loans;
- d) the impact of digitization of banking on the development of micro, small and medium enterprises;
- e) assessment of farmers' perception of agricultural financing.

The *research methodology* falls within the scope of quantitative finance and uses, but is not limited to, specific methods, techniques and tools in econometric research, as well as an interdisciplinary approach based on statistical models and modeling of data series. Research includes both quantitative and qualitative methods for achieving the assumed goals. In order to ensure representativeness, the analyses were made on the basis of large samples in relation to the statistical ensemble proposed for analysis, using standard statistical procedures. The choice of emerging Asia and India area, in our view, has a major contribution to increasing the originality of doctoral research.

Summarizing our contributions, we first highlight our desire to contribute to the *development of an early warning system for financial crises by addressing existing signals at a given time, in order to determine the likelihood of financial crisis*. The signal extraction

method is a technique that captures the behavior of the variable (s) on a given scale, and then each indicator is analyzed separately within the framework of this univariate approach to observe a crisis. The empirical study developed an early warning system to identify those variables that tend to show that a country might be vulnerable to a financial crisis.

Second, *we empirically tested the extent to which capital investors in Indian industry responded positively or negatively to the demonetization process in India in 2016* and used in this study three recognized models in the literature to identify abnormal profitability, namely: the market model, the adjusted profitability market model and the average yield model.

Thirdly, we highlight the analytical character of *empirical study that had as objective the assesment of strategies for the management of non-performing bank assets*. The investigation, based on the use of the standardized questionnaire in order to collect data, has an interdisciplinary character that derives including from the mix of research methods and techniques related to areas such as: finance, sociology, statistics, management, marketing. Also, *the research methodology regarding the analysis of the evolution of non-performing agricultural credits includes testing the reliability and validity of the questionnaires using the Cronbach alfa index*.

Fourth, the main objective of the *empirical study on the impact of the digitalisation of banking activity on the development of micro, small and medium-sized enterprises* was to identify a model of multiple regression, taking into account those factors that positively affect the growth of SMEs. For this study, the questionnaire method was used.

Last but not least, *the descriptive research proposed to assess farmers' perceptions of agricultural financing* was based on testing the relevance of customer preferences in the use of the loan facility. For the selection of respondents, the random sampling technique was adopted for the purpose of the study, and the questionnaire method was used for data collection.

The PhD thesis was structured in five chapters, the first dedicated to conceptual study and theoretical-methodological research and the next four to applied research.

"*Conceptual approaches to the banking industry in emerging Asian countries*", the first chapter of the PhD thesis aims to approach the essential theoretical aspects, absolutely necessary to achieve the main research objective, namely: conceptual approaches to the banking system and industry banking, grouping of countries globally with an emphasis on identifying the characteristics of emerging economies, assessing the characteristics of Asian

banking systems focusing on: Indonesia, Malaysia, Philippines, Singapore, Thailand, South Korea, Japan and China, and a broader approach to the system banking in India.

The development of a country is entirely related to the development of the banking sector. It is one of the important pillars of the financial sector, which plays a vital role in the functioning of an economy. It is very important for the economic development of a country that its requirements for financing trade, industry and agriculture are met with a greater degree of commitment and responsibility. As a peculiarity, in India, national or indigenous banks (domestic, domestic sector) are required to give at least 40% of their lending activity to selected sectors by the Central Bank of India, while for foreign banks a quota of 32% is set. While priority sector lending (PSL) has boosted access to lending activity in India, on the other hand it has led to higher levels of non-performing loans and compromised banks' development of strong risk management practices.

The Indian banking industry has recently witnessed the launch of innovative banking models such as payment banks and small financial banks. The new measures by the RBI could greatly contribute to the restructuring of the domestic banking industry. India's digital payment system has evolved a lot lately. Under these circumstances, India's economy grew, but growth slowed before the onset of the COVID-19 pandemic. India has experienced strong economic growth over the past 4 decades. During this period, real incomes per capita increased fourfold. India's share of global output has doubled to 7%, and it is now the world's third largest economy in terms of purchasing power parity.

"Measuring the effectiveness of signals in an early warning system for financial crises. Case study for Southeast Asia", the second chapter of the paper aimed to apply the signal technique approach to the selected region in order to investigate how effective and useful this approach is in capturing crisis episodes. In this regard, we considered it important to analyze whether these issues could also be recorded in relation to the period of the Asian financial crisis and the global financial crisis. To this end, several additional steps have also been taken to make the study more concrete, applied and reliable. This could help build consensus on the research tools that should be used and what features they should have in order to better capture such financial disturbances / disturbances / turbulences.

We analyzed a significant part of the existing literature on the existence and behavior of financial crises, as well as methodological tools that have been frequently used in previously published research studies. As a step in succession, details are provided on the methodology directing how to work on the use of an early warning system which includes: definition of objectives, identification of the sampled country, time period, method used,

selected variables. The time period covered by this empirical study used 222 observations from January 1993 to June 2012 from the previously listed ASEAN countries.

Chapter Three "*The impact of the demonetisation process in the year 2016 on the Indian financial industry. Empirical case study*" finds its motivation in that the effect of demonetisation on the economy in India was significant and had multidimensional implications. We point out, summarising, that on November 8, 2016, the Government of India implemented the demonetization process on approximately 86% of its national currency in circulation in an attempt to reduce dark money, corruption and forgeries (fake money, counterfeit money) on the financial market. In this regard, a significant percentage of about 99% of the currency was eventually returned to the banks in order to be removed from the market permanently. Demonetisation has had a positive but inevitable and a negative effect on real economic activity in India.

The research hypothesis for this empirical study, which uses the event study model, is that the announcement of demonetization resulted in an immediate response in the financial market for companies' share prices. Based on this hypothesis, the study of the event is carried out with the aim of identifying whether there was an abnormal return on financial assets immediately after the announcement of the demonetization process in India. We turned to a cluster of 15 listed companies, major players in the Indian industry (cement manufacturing companies) based on their market capitalization.

In this research study we used three representative models, namely: the market model, the market-adjusted model and the average-adjusted model. The average return for selected companies in the last 6 months before the demonetization announcement was calculated using the market model. The alpha and beta coefficients were measured using this market model. Other actual returns for the period of the event are calculated, using the market model, the market adjusted model and the average return model. In synthesis, the empirical study conducted in this chapter captures the impact of demonetization on companies in India (according to the selected cluster), using the econometric event study model and the efficiency of the Indian stock market.

The research objectives of chapters IV and V, like the previous one, were devoted to the banking industry in India. The argument for choosing this country as a case study was explained above and is intensely detailed in the content of the PhD thesis.

"*Recent developments in India's banking industry. Empirical analysis*", the fourth chapter of the PhD thesis, deals with one of the most important problems of the Indian and, implicitly, Asian and even global banking industry, namely the problem *of managing non-*

performing banking assets and, within them, *non-performing loans*, with a focus on those resulting from the financing of agricultural projects.

India's non-performing bank assets are growing rapidly and the country ranks fifth in the world in terms of share held by non-performing bank assets as Indian government statistics show. A number of strategies have been implemented to manage these non-performing assets, but this problem still persists at a very high level. An effective antidote has not yet been invented either by the National Bank of India (Reserve Bank of India - RBI), or by another bank, or by the Government of India to completely solve the expansion of non-performing bank assets. The strategies developed in the Indian banking system are curative in nature and can be used only after the client's account becomes a non-performing bank asset. One of the major issues that should be considered is that once the account becomes non-performing bank asset, only part of the entire loan could be recovered through curative management strategies, and the unpaid amount would become the lender's loss. Some authors have suggested that it is time for Indian banks to be more proactive to adopt a pragmatic and structured policy of managing non-performing bank assets, where prevention measures should be a priority.

The objectives of the empirical research study can be summarized as follows: determination of the causes that generate non-performing bank assets in Sagar district from India; analysis of the frequency of use of various preventive steps by commercial banks in Sagar district; comparison of efficiency in the use of preventive management strategies by public and private sector banks in Sagar district.

Another objective of the study is to raise the alarm for policy makers about the obstacles and difficulties faced by bank branch directors in making appropriate decisions about lending policies and managing credit risk.

A market research is pursued by launching a questionnaire and collecting data from 82 bank branches in Sagar district, mainly following the characteristics of non-performing bank assets regarding: causes of occurrence, frequency of use of preventive measures and its effectiveness. We mention that the conducting of this study was based on an international collaboration, with the direct participation of researchers from Romania, India and Bahrain, and the results of the study were published in a journal indexed Clarivate Analytics Web of Science-Emerging Sources Citation Index.

In the second part of this chapter we will examine the evolution of non-performing assets in the case of agricultural loans in India, the research methodology being extended by testing the reliability and validity of questionnaires using the cronbach alfa index. We

appreciate that the research carried out in this report could be useful from an academic perspective, but also from the perspective of practitioners in the banking system. The empirical results obtained from the two studies included in this chapter could provide a useful perspective on the option for a more effective strategy to prevent the expansion of the portfolio of non-performing bank assets. In addition, it could help to raise the awareness of banking authorities about the problems faced by managers in the use of preventive measures, as well as to better understand the impact of non-performing agricultural loans on economic growth in India.

The fifth and final chapter, entitled "*Empirical Research on the Prospects of the Indian Banking Industry*", focuses on the *study of the impact of the digitalisation of banking activity on the development of micro, small and medium-sized enterprises (SMEs)*. We will study the impact of the positive effects of digital banking on the growth and development of SMEs, by formulating a multiple regression model and we will try to determine the significant variables of digital banking that positively affect the growth of SMEs. This objective could be achieved by observing the significant value of the coefficients of the various independent variables that are taken into account, and it is also aimed at classifying a model that could represent the impact of various favorable reasons (arguments) of the use of digital banking on the growth of SMEs. By using the proposed model, bank managers could analyze the impact of favorable factors of digital banking on profit. In this way, they could encourage more SMEs to use digital banking, highlighting those significant favorable factors.

The reason for initiating this research study was our consideration of the growth of the SMEs sector in India, this segment owned by micro and small and medium enterprises being the largest in the world after China. Also, the motivation behind the selection of Bihar state is that it has the highest number of registered SMEs. The purpose of selecting Katihar District as a sampling unit was based on the fact that it is a small town dominated by the presence of SMEs, but with less implementation of digital banking among people before the demonetization process in 2016. Last but not least, the purpose of the research is also to increase the expectations and preferences of bank customers, an increase that is no longer possible with the help of existing banking models and will be possible only with the use of fourth, fifth or even sixth generation tools, technologies and mechanisms (banking 4.0, 5.0 or 6.0). Entering Industry 4.0 involves two distinct dimensions: first meeting new needs through the use of innovative products and services, and second, higher productivity due to the

implementation of process innovations. An international team has been set up in this study, with the direct participation of researchers from India.

The last part of the chapter aims to *assess farmers' share of the financing of agriculture*. One of the most important government activities in India is promoting the development of agriculture by providing funding for agriculture. Agricultural financing allowed farmers to obtain both short-term and long-term loans for the purchase of inputs and other services, as well as long-term financing for investments. The credit has thus played a crucial role in facilitating technical progress in the agricultural sector and the marketing of agricultural products.

This empirical study aims to analyze the current financial support provided by banks or financial institutions; to understand the problem faced by farmers in India in benefiting from the facilities offered by the bank/financial institution and to identify a possible solution to minimize the difficulties faced by a farmer. In order to achieve the above mentioned objectives, both primary and secondary data will be collected using the questionnaire. We aim to test whether farmers in India need to adjust (modify) their mentality regarding loan amnesty, as most of them anticipate that the government will clear (cancel) their debt (debit) with the bank. Farmers should be aware of the many agricultural credit programs available, while the Government of India needs to regulate banking activity in order to provide better financing for agriculture.

From the above, it results that I have completed a PhD thesis with a balanced structure, with an appropriate assignment for conceptual and theoretical-methodological elements, but with a generous emphasis (four chapters) on empirical research just to demonstrate the topicality of the research, but also the scientific value of the mentioned objectives and of the obtained results, presented below.

Thus, we consider that *I have contributed to the development of the literature by developing a system for early warning of financial crises using the signal technique approach*, testing the performance of the model based on variables selected for the chosen study region, respectively ASEAN countries (Indonesia, Malaysia, Philippines, Singapore, South Korea and Thailand). Within this cluster of states we had developed economies, such as Singapore and South Korea, as well as emerging market economies, respectively, Indonesia, Malaysia, the Philippines and Thailand. This combination of countries gave us the opportunity to examine the behavior of crises for different economies. Empirical analysis allowed us to determine the probability of financial crises and, therefore, the predictive capacity of the model.

The empirical study conducted developed an early warning system to identify those variables that tend to indicate that a country might be vulnerable to a financial crisis. In particular, we expanded a model developed by Kaminsky (1999) and assessed it on the basis of the performance of indicators in the sample, and also of sample tests on the probability of occurrence of the crisis. The model has proven to be useful in identifying disturbances, and this vulnerability assessment can be applied to any country at an individual level or a cluster of countries over a given period of time.

The performance was ambivalent for the early warning system, as the model generated many false alarms and various indicators did not provide the synthetic vulnerability of a particular country. However, the model was able to correctly highlight vulnerabilities in times of crisis for different countries, such as: South Korea, Malaysia and Thailand.

Many generally valid conclusions can be drawn from this empirical study. Crises, by their nature, are based on uncertainty and therefore their exact timing cannot be accurately predicted. Most of the variables provided early indications, but there were also many false alarms. Among the variables that performed very well during crises are: reserves, exports, inflation rate, DC/GDP, exchange rate, share prices and production level. Many of the other variables were significant during one crisis, but showed no significance during another. However, this result can be explained on the basis that both analyzed crises were different in their manifestation, since the Asian financial crisis (AFC) was more a currency crisis. However, the global financial crisis (GFC) was mainly related to the problems of the banking sector and some of the variables directly related to the banking sector were extremely significant during the last crisis, which includes the loan/deposit and bank reserves/bank assets ratios.

For the ability to highlight disruptions, ***the performance of the model was satisfactory and identified the vulnerabilities present in the countries subject to empirical analysis.*** However, it performed poorly on crisis forecasting, which is a weakness and suggests further refinement of the early warning system, which could be useful for incorporating additional explanatory variables or finding alternative statistical methods. ***As a consequence of this empirical study, a new future direction of research can be achieved by developing a study that includes the statistical approach as an addition to this non-parametric approaches.*** Thus, it could be used as an early warning system to improve the scheme in general, even if both approaches can be used in tandem to achieve solutions that are characterized by greater efficiency, reliability and accuracy.

The empirical results obtained were representative and led to the validation of robust conclusions, scientifically grounded and useful for both practitioners and financial theorists.

Methodology of the study of the event (Chapter III) measures the impact of an event (announcement, policy measure or even a natural disaster) on the return on financial assets (shares) traded. Event studies break up the timeline around the date of the event and test whether actual yields during the event period were abnormal, compared to predicted or expected returns.

Demonetisation has been good news for most of India's ordinary people, workers and poverty-stricken people. This special event made a lot of noise even in the media with discussions about the positive and negative impact on the economy.

Our goal was, starting from the title of the PhD thesis, to highlight one of the major recent developments in the Indian financial industry, by studying the immediate impact of this event on the share prices of listed companies on the organized market.

The implications of this research study were that the response to the event was not very rapid and the existence of a semi-strong form of market efficiency was identified according to the Efficient Markets (EMH) assumption. However, the study was conducted with special reference to a specific industry (listed companies in the cement industry), but our study can be extended for further studies on other industries. We can conclude that the full impact of demonetization will be observed in a few years, but this process had a significant immediate effect on the tax base and tax collection, since it also caused a tremendous increase in digital transactions and caused the formalization of the economy in India.

In the next chapter (IV), ***we aimed to determine the causes that generate non-performing bank assets and conducted an analysis of the frequency of use of various preventive steps by commercial banks and comparison of efficiency in the use of preventive management strategies by public and private sector banks in Sagar district, India.*** The research hypotheses were formulated as follows: all causes that generate non-performing bank assets are equally responsible for increasing their level, and the effectiveness of all preventive management strategies used by Bank branch managers in Sagar district of Madhya Pradesh region of India is similar.

Analyzing the empirical results, it is clear that bank managers are well aware of all the underlying causes of non-performing banking assets in the Sagar district of India. However, of all these causes, the following stand out: intentionally defaulted customers, poor credit rating, government strategies and policies, and political interference are the most responsible causes for under-performing banking assets. The respondents also added the other

causes, namely the demonstrative effect and the defiant attitude of the debtors. Bank managers recommended the existence of a strong judicial system, which is very necessary to deal with malicious customers, political interference and defiant attitude of borrowers. Similarly, there should be no obligation to meet lending targets so that bankers focus on achieving a rigorous assessment of each credit.

A reward and appreciation system for bona fide debtors is needed to reduce the demonstrative effect. In addition, the granting of subsidies by the government authorities of India should also be avoided, since this measure discourages even debtors able to pay their debt within the established time limit. All banks use preventive management strategies to avoid the emergence of non-performing bank assets in the future. All bank branch managers in Sagar district know that preventive management strategies are highly effective to prevent the emergence of non-performing bank assets in the future, but they are not able to use these strategies frequently and effectively.

It can be noted that some early warning signals, such as: non-payment of the first installment, payment of a lower amount, initiation of the judicial liquidation process, impossibility to contact certain customers and death of debtors are issues considered by banks, but the other early warning signals are ignored. In compliance with the opinion of certain bank branch managers in the analyzed sample, there are certain inconveniences, such as: political interference, lack of personnel, lack of training among credit officers, etc., which generated obstacles and limitations for managers in the effective use and application of preventive measures.

In addition, this empirical study has shown that although banks in India are autonomous bodies, there is still political interference. Moreover, to some extent, political interference is also responsible for the growth of under-performing banking assets in the Sagar district of India.

In part two of Chapter IV *we examined the problem of non-performing bank loans in the case of agricultural loans in India*. The research methodology was extended by testing the reliability and viability of questionnaires using the Cronbach alpha index. The empirical analysis was performed on the process involved in pre- sanctioning and post-sanctioning of agricultural credit and the management of non-performing loans in the case of different types of banks. Most banks have warned the rural population about these schemes and have tried to reach small and marginal farmers, but despite these efforts, there are still obstacles to accessing agricultural credit.

From the empirical analysis we noticed that there are no differences in the process of pre and post sanctioning of agricultural credit and the management of non-performing assets in the case of the types of banks subject to empirical analysis. Non-performing assets were due to the wrong debt waiver policies of political parties and the voluntary waiver of debtors' payments. In a globalized economy, the links between acquisitions in the agricultural area and non-performing assets in agricultural loans are complex and can significantly influence India's sustainable development. Indian agriculture plays a key role in stimulating economic growth and technological progress.

The two empirical research studies included in this chapter were conducted on the basis of a joint international collaboration, which included researchers from Romania and several Asian countries. The interdisciplinary approach of the studied phenomenon led to obtaining relevant empirical results, with diversified practical implications. The research on the causes that generate the non-performance of banking assets, using the research methodology described above, can be extended and further developed for other banking systems in emerging countries that, as in the case of India, incorporate sufficient specificity elements compared to traditional banking systems, respectively European ones.

Digital banking plays a vital role in the current dynamic, where people look beyond the traditional way of going to the bank to do their routine banking transactions. A significant part of the clients of the banking system are young people and middle-aged people who have different expectations and preferences from the previous generation. Meeting these expectations and preferences is no longer possible with existing banking models and will only be possible with the use of fourth, fifth or even sixth generation tools, technologies and mechanisms (banking 4.0, 5.0 or 6.0). Entering Industry 4.0 involves two distinct dimensions: first meeting new needs through the use of innovative products and services, and second, higher productivity due to the implementation of process innovations.

In this context, *in the last chapter, we identified a multiple regression model*, taking into account those factors that positively affect the growth of not only micro, but also small and medium-sized enterprises (SMEs), on the example of India. Regarding the research methodology, the data used in this study were obtained from primary sources, being collected by the questionnaire method. The questionnaire covers the nature and size of businesses (business area) and the opinion of owners/owners and managers of 454 micro, Small and medium enterprises (SMEs) in Katihar district, a semi-urban area of Bihar state in India, on the various favorable influencing factors of digitized banking. These aspects were measured on a Likert scale of 1 to 10.

We found that SMEs subject to research feel more light / comfortable in accepting and making payments through digital banking, because their coefficients are significant in the formulated model. The other favourable factors such as managing commercial expenses, saving time, checking for embezzlement/theft of cash did not reach too significant values from a statistical point of view. Bankers in the study area, namely Katihar district, a semi-urban area of the Indian state of Bihar, are unable to serve these SMEs properly, which shows that they are unable to take full advantage of the benefits of digital banking. It has also been found that the level of adaptability has just started to increase and SMEs may not be very familiar with digital banking. For this reason, SMEs are somewhat unable to take advantage of all the benefits of digital banking. Therefore, bankers should always try to educate their customers properly and should also provide appropriate up-to-date information on the dynamics of digital banking so that they can be used appropriately by customers.

By using the model presented, banking managers could analyze the impact of favorable factors of digital banking on the profit of SMEs. In this way, they could encourage more SMEs to use digital banking. The model classified in this study took into account only the favorable determinants of digital banking. For future research studies, a new study could be conducted taking into account the determinants that negatively affect the use of digital banking or the impact of adverse determinants of digital banking on the level of reluctance to use digital banking among SMEs of India.

The interdisciplinary approach of the studied phenomenon led to obtaining relevant empirical results, with diversified practical implications.

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PhD thesis *Developments and perspectives of the banking industry in emerging Asian countries. Empirical research on India* addresses a topical issue and practical importance relevant to the current international context.

Theoretical syntheses, statistical analyses, empirical research studies presented in the PhD. thesis, empirical results as well as the final conclusions highlighted based on these research studies have validated the objectives presented in the introductory part and undertaken, but also certain directions of action regarding the surprise and empirical validation of certain trends and developments specific to Asian banking systems with focus on India as a support country.

Thus, these empirical studies have led to the obtaining of representative, scientifically based conclusions that can be used by decision makers in the banking industry, academia, business, researchers, etc.

Rigorous econometric research across the spectrum of the banking industry is important for the development of banking knowledge and innovation.

In my PhD thesis I also used the *results of published studies*, which I conducted during my doctoral studies, as the sole author or co-author in research teams composed of researchers from Romania or abroad. In this regard, I mention the participation with **4 research papers at international conferences**, three of them taking place in Romania (Pitești, Craiova) and one internationally (Turkey). Also, the basis of conceptual approaches are **7 research articles that have been published in BDI and ERIH PLUS journals**. The empirical research, which can be found in chapters II - V of the PhD thesis, was oriented towards the requirement of disseminating research results, and the recognition of the quality of scientific research materialized through the publication, as co-author, of **3 research articles in journals indexed ISI Web of Science / Clarivate Analytics**, which enhances the consistency of empirical research, as well as the sturdiness of the findings on recent developments in the Asian banking industry, presented above.

As future research directions, we intend to extend the research by *developing a new study that includes the statistical approach as a complement to non-parametric approaches in the study of early warning systems of crises to* improve the overall scheme, even if both approaches can be used in tandem to achieve solutions that are characterized by greater efficiency, reliability and accuracy. *A new study could also be considered, taking into account the determinants that negatively affect the use of digital banking or the impact of adverse determinants of digital banking on the level of reluctance to use digital banking among SMEs in other emerging Asian or European countries.*