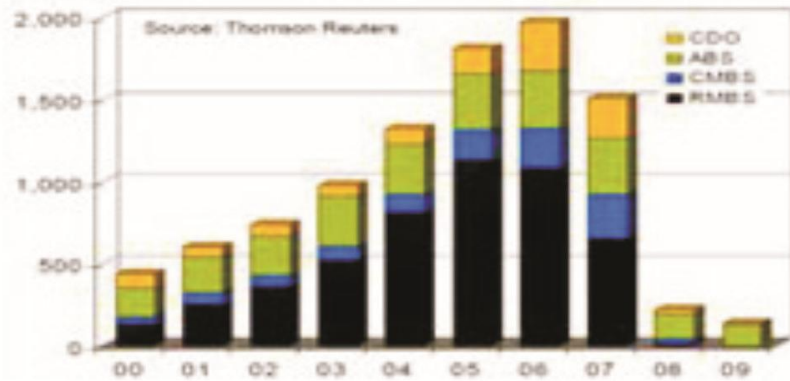


SJBIR

ISSN (online) : 2319-1422

SAARJ Journal on Banking & Insurance Research (SJBIR)



Published by
South Asian Academic Research Journals
A Publication of CDL College of Education, Jagadhri
(Affiliated to Kurukshetra University, Kurukshetra, India)

SJBIR

ISSN (online) : 2319-1422

Editor-in-Chief : Dr. Priti Pandey

Impact Factor : SJIF 2018 = 5.97

Frequency : Bi-Monthly

Country : India

Language : English

Start Year : 2012

Indexed/ Abstracted : Ulrich's Periodicals Directory, ProQuest, U.S.A.
EBSCO Discovery, Summon(ProQuest), ISC IRAN
Google Scholar, CNKI Scholar, ISRA-JIF, GIF, IJIF

E-mail id: sjbir@saarj.com

VISION

The vision of the journals is to provide an academic platform to scholars all over the world to publish their novel, original, empirical and high quality research work. It propose to encourage research relating to latest trends and practices in international business, finance, banking, service marketing, human resource management, corporate governance, social responsibility and emerging paradigms in allied areas of management including social sciences , education and information & technology. It intends to reach the researcher's with plethora of knowledge to generate a pool of research content and propose problem solving models to address the current and emerging issues at the national and international level. Further, it aims to share and disseminate the empirical research findings with academia, industry, policy makers, and consultants with an approach to incorporate the research recommendations for the benefit of one and all.

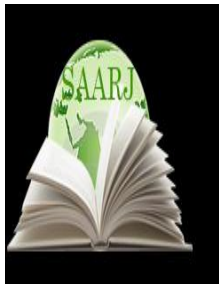


SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



SR. NO.	PARTICULAR	PAGE NO.	DOI NUMBER
1.	“IMPROVEMENT OF METHODOLOGICAL BASES OF BUSINESS PROCESSES IN INSURANCE ACTIVITY ” Yakubova Nargiz Tursunbaeva	4-8	10.5958/2319-1422.2019.00005.5
2.	INFLUENCE OF STRESS TESTING IN THE MANAGEMENT SYSTEM OF COMMERCIAL BANKS Altinbek Yangibayevich Abdullayev, Beknazar Kattakichiyev	9-19	10.5958/2319-1422.2019.00006.7
3.	FAIR TARIFF POLICY IN INSURANCE: THEORY AND METHODS OF CALCULATION Abdurakhmanov Ilyos	20-27	10.5958/2319-1422.2019.00007.9
4.	CHANGING FACE OF INDIA BY RISING FACE OF INTERNET USAGE S.Hema, Dr C.S.G. Krishna macharyulu	28-35	10.5958/2319-1422.2019.00008.0
5.	BANK CREDITS FOR INNOVATION PROJECTS: JUSTIFICATION OF SIGNIFICANCE Jamshid Shakirov	36-43	10.5958/2319-1422.2019.00009.2



SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



DOI MUNBER: **10.5958/2319-1422.2019.00005.5**

“IMPROVEMENT OF METHODOLOGICAL BASES OF BUSINESS PROCESSES IN INSURANCE ACTIVITY ”

Yakubova Nargiz Tursunbaeva *

*Independent Researcher,
Tashkent financial institute, UZBEKISTAN
Email id: Nargiz_bnt@mail.ru

ABSTRACT

The article examines the trends in the development of business processes in the insurance market and the near and strategic perspectives of the insurance market. The aspects of insurance product production and the effective organization of insurance folklore are considered. Access to this process - begins with the customer's personal data and all its details for the insurance policy. As a result, the insurance coefficient's calculation and risk appear. A number of Governmental Decrees and laws are adopted to improve the sector. In order to support this sector in a comprehensive manner, it has the task of providing soft loans, providing tax breaks, and developing the sector's infrastructure. The achievements in the real sector of the economy have led to the economic development of the country. In summary, the role of insurance in ensuring the macroeconomic stability of the real sector of the economy of our country is very significant. Therefore, the Government has taken a number of measures to develop this sphere. The organization of the insurance business includes factors such as collecting data on each insurance product, studying market demand and supply.

KEYWORDS: *Insurance, Insurance Activity, Business Processes, Insurance Products, Potential Insurances, Insurance Coverage, Insurance Services.*

INTRODUCTION

Business processes in the insurance business are changing and constantly improving and improving in a competitive economy. Business processes constitute the main mechanism of the insurance market.

Business processes in the production of insurance products and efficient organization of insurance folk are as follows:

- direct and indirect management of clients and potential insurers;
- Determine the demand for insurance products;
- automation and integration of business processes organization;
- Improvement of payment insurance coverage;
- Creating new opportunities for insurance business processes.

The purpose of the article is to examine the trends in the development of business processes in the insurance market, as well as the near and strategic perspectives, to examine aspects of insurance product production and effective management of insurance.

The main focus of business processes is to achieve high efficiency by attracting clients to insurance. In order to actively participate in the insurance market, insurance companies need to analyze and model business processes.

Business processes of insurance activity in competitive economy conditions include provision of insurance services, reliability and alternatives of insurance services, optimal financial resources, comprehension of insurance protection, proportion of insurance payments and provision of professional insurance services.

Business processes are directly applicable to transferring insurance products to the insurance market. The organization of the insurance business includes factors such as collecting data on each insurance product, studying market demand and supply.

The main purpose of the business process in insurance activity is to improve the sale of insurance services. The business process of the insurance organization is carried out in two ways:

Improvement of sale of insurance products;

1. Creating a group of insurance clients and potential insurers.

In improving the sales of insurance products, it is envisaged to work directly with the professional participants of the insurance market, intermediaries of the insurance market on the basis of supply and demand insurance.

Attracting insurance clients to explain the advantages and disadvantages of direct insurance and separate work with potential insurer.

Improving business processes in insurance activities is the introduction of the advertising system by studying the insurance market and working with marketers and agents.

Through the advertising system, customers receive information about new types of services. The formation of an active customer group is a key factor in the development of the insurance

company. To do this, you need to take full advantage of the promotion of the insurance company's insurance products.

The business process involves the establishment of a sales mechanism, predicting the demand for insurance products, with an active deal with agents. At the same time, an insurance company organizes agency services in its branches and contributes to the growth of profits.

The business process will be carried out in 4 stages and will be as follows (Figure 1):



The next step is to raise the status of the insurance company to a higher level by modeling business processes. The business process occurs in the presence of clients and reinsurers. First of all, the demand for insurance products in the insurance market is determined. Requests are generated in a variety of ways, such as query queries, by using panel queries.

The second step is the organization of insurance business by assessing the insurance risk. The risks involved in insurance activities play an important role. Access to this process - begins with the customer's personal data and all its details for the insurance policy. As a result, the insurance coefficient's calculation and risk appear.

Analysis of business processes in insurance will lead to the efficiency of the company's performance and the growth of its growth.

In assessing performance, the business process is associated with the growth of insurance companies' operations and the provision of various services to customers.

The object of insurance business is to study the insurance market professional activity, the activity of insurance intermediaries, entrepreneurship and business, which serve as insurance activities and insurance activities that are associated with insurance activity. Therefore, this science will also

study economic relations related to the formation and use of monetary funds in the targeted direction to cover, prevent and prevent the losses arising from the effects of natural or other force majeure.

The insurance business is directly related to risk management. The existence of insurance risk is a necessary requirement of the insurance business.

Insurance business consists of insurance activity, activity of professional participants of insurance market, and investment activity. The insurance business occupies a major place in the structure of insurance business. Therefore, insurance functions are the functions of insurance business. In this sense, the insurance business functions include: Functioning, warning, insurance, related to the use of the insurance fund associated with the formation of the insurance fund; savings; information and control.

Investment Functions of Insurance Business. An insurer through an investment receives additional income.

The subjects of insurance business are insurers and insureds, professional participants of the insurance market, investment organizations. State Insurance Inspectorate and other companies. The insurance business associated with insurance activity is divided into the following sectors: life insurance (insurance of interests of individuals in life, health, ability to work and money supply, the minimum term of the insurance contract is one year, and one-time or periodic payments (including insurance premiums) annuities); general insurance (personal, property insurance, liability insurance and other types of insurance which are not related to life insurance).

Accidental, natural forces of nature can cause people to suffer material and material damage in their work and life. Human beings have long been thinking about protecting themselves against the harmful effects of such tragedies and have used a variety of methods. One of the main ways to protect against accidents is accident insurance.

Insurers are provided with insurance protection through insurance. Insurance relationships are the relationships between acquisition of insurance cases, elimination of negative consequences, and compensation of damages.

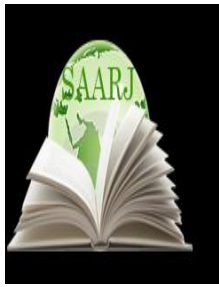
Insurance is understood to mean the protection of their interests by paying the insurance indemnity under these insurance contracts upon occurrence of certain event (insurance event) at the expense of monetary funds formed from insurance premiums paid by legal or physical persons.

In summary, the role of insurance in ensuring the macroeconomic stability of the real sector of the economy of our country is very significant. Therefore, the Government has taken a number of measures to develop this sphere. A number of Governmental Decrees and laws are adopted to improve the sector. In order to support this sector in a comprehensive manner, it has the task of providing soft loans, providing tax breaks, and developing the sector's infrastructure. The achievements in the real sector of the economy have led to the economic development of the country.

Given the importance of the real sector of the economy, we understand the need to strengthen the system of insurance protection of the enterprises of this sector. There are some problems that need to be addressed in terms of covering the property interests of the enterprises of this sector. The relevance of these problems has increased today.

REFERENCES

1. Economic Research. -2016. -P. 2-11. URL: https://www.allianz.com/v_1462283952000/media/economic_research/publications/working_papers/en/GVM26Apr2016e.pdf
2. Benfield A. Global Insurance Market Opportunities/ A. Benfield //Risk. Reinsurance. Human Resources. – 2015. - P. 1 - 63 URL: <http://thoughtleadership.OnBenfield.com/documents/20150913-ab-analytics-insurance-risk-study.pdf>
3. Global insurance review 2015 and outlook 2016/17 // Swiss Re. - 2015. URL: http://www.swissre.com/library/Global_insurance_review_2015_and_outlook_201617.html
4. Insurance Market Outlook // Munich Re Economic Research. - 2016. URL: https://www.munichre.com/site/corporate/get/params_E1754367884_Dattachment/1189728/Insurance-Market-Outlook-2016-2017_en.pdf
5. Seifert C. Insurance Predictions for 2016.//Market intelligence. -2016. URL: <http://marketintelligence.spglobal.com/our-thinking/ideas/insurance-predictions-for-2016>
6. Aksyutina, S.V. Insurance market of the Russian Federation: problems and prospects // Problems of territory development. - 2014. - № 2.
7. Okorokova O.A. Foreign experience of investment activities of insurance companies // Bulletin of the Adyghe State University. Series 5: Economy. –2012.– № –C. 146-155.
8. Okorokova O.A, Ulybina L.K Foreign and domestic experience in the development of the insurance market // Polythematic network electronic scientific journal of the Kuban State Agrarian University. –2012.– № –C. 667-675.
9. Okorokova O.A, Ulybina L.K Foreign experience of investment activities of insurance companies // In the collection: Scientific support of the agro-industrial complex.– –C. 665-666.
10. Okorokova O.A. Formation and evaluation of investment activities of insurance organizations // Abstract of dissertation for the degree of candidate of economic sciences / Institute of Economics, Law and Humanities. - Krasnodar, 2012
11. Okorokova O.A, Ulybina L.K Institutes and instruments for investing financial resources of insurance organizations // Economic Sciences. –2011.– № - P. 194-198.
12. Okorokova O.A. Insurance market: trends and development prospects // Terra Economicus. – 2011. –T. 9. –№ 3-2.– P. 74-78.
13. Okorokova O.A, Ulybina L.K Formation and development of the insurance sector of the financial market in the reproduction process of the regional economy //2013. –№– P. 101-110.
14. Ulybina L.K., Okorokova O.A., Vanyan G.A. Insurance market of Russia: evaluation of indicators and development prospects // Economy and Entrepreneurship. –2013. –№7 (36). –P. 64-68.



SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



DOI MUNBER: **10.5958/2319-1422.2019.00006.7**

INFLUENCE OF STRESS TESTING IN THE MANAGEMENT SYSTEM OF COMMERCIAL BANKS

Altinbek Yangibayevich Abdullayev*; **Beknazar Kattakichiyev****

*Doctor of sciences (DSc),
Professor of Jizzakh Polytechnic Institute,
UZBEKISTAN
Email id: oltinbek60@gmail.com

**Assistant Professor,
Jizzakh Polytechnic Institute,
UZBEKISTAN

ABSTRACT

Purpose of the article: explore existing approaches to the management of commercial banks, choose the priority direction of stress testing in the crisis management system, justify the direction of improving this process and determine the effectiveness of the impact of special regimes on banking activity. The methods of stress testing of the results of the functioning and development of a commercial bank were used, taking into account the existing forms and tools of banking incentives. According to the results of the study, relevant recommendations and suggestions for decision makers were prepared. The author comes to the conclusion that the article summarizes the effects and features of stress testing in the crisis management system of a commercial bank, taking into account quantitative and qualitative characteristics.

KEYWORDS: *Socio-Economic System, Instrument, Investment, Innovation, Crisis, Depression, Economic Recession, Pivot.*

INTRODUCTION

Any socio-economic system achieves success in its activities, if it is in a state of consistent and steady development. The experience of different countries shows that investment and innovation serve as tools for such development. Since innovations are an indispensable component of a progressive recovery from a crisis, the need for them in all spheres of economic activity, and, above all, in management, is particularly acute during periods of depression and economic recessions.

The banking system of any state is the main pivot in the development and successful functioning of a market economy and a necessary prerequisite for growth and stability of the economy as a whole. The functioning and stability of the banking system is determined by the stability of individual commercial banks - as the core of the banking sector. The current global financial and economic crisis has vividly demonstrated the need for crisis prevention and the importance of crisis management as a set of measures aimed at preventing the failure of commercial banks in the future. In the current circumstances, such an innovative management tool as stress testing plays a special role in preventive crisis management.

To date, the insufficient development of the theoretical and methodological base for stress testing, both at the micro level (in individual commercial banks) and at the macro level (at the level of the banking sector as a whole), may cause a decrease in the effectiveness of management and lead to a weakening of financial sustainability. The relevance of the research topic is due to the high theoretical and practical significance of stress testing as an innovative tool of crisis management; the need to develop and implement stress testing methods that are adequate to the current economic situation; the need for comprehensive research aimed at the development of the theoretical and methodological foundations, methodological provisions of stress testing as an innovative tool in the anti-crisis management of the stability of commercial banks.

Stress testing can be the basis for predicting and justifying ways to solve the pressing problems of the banking system development. In the system of crisis management of commercial banks, stress testing allows predictive assessment of the financial results of commercial banks, taking into account significant changes in the external environment, various scenarios for the development of specific commercial banks.

Analysis of the experience of stress testing abroad and in Uzbekistan showed that its use was formal and insufficiently used to improve the efficiency of banking risk management, including informing the governing bodies of commercial banks and developing a strategy for the development of commercial banks and the banking system as a whole. The ineffectiveness of stress testing, primarily because of its insufficient integration into the management system of commercial banks in general and the risk management system in particular, is confirmed by the huge losses that commercial banks suffered as a result of the global financial crisis.

The financial and economic crisis showed the need to eliminate the formal approach to the use of stress testing methods, improve its theoretical and methodological foundations, innovate its use as a tool for crisis management and, as a result, a high need to ensure the integration of stress testing into the management system of commercial banks in general. Stress testing should be carried out continuously and from the very beginning of the organization's activities, not only at the micro level, but also at the macro level, including the timely and reasonable development of a plan adequate to the action to eliminate the negative effects of banking risk concentrations.

The banking system of any state is the main pivot in the development and successful functioning of a market economy and a necessary prerequisite for the growth and stability of the economy as a whole.

Commercial banks, from a legal point of view, are institutions that have a dual legal nature: on the one hand, a credit institution is one of the types of commercial-private law organizations, and, on the other hand, the activities of commercial banks are public.

The Law of the Republic of Uzbekistan “On Banks and Banking Activity” (Article 3) considers commercial banks, which are public law organizations, in a certain unity - in the form of the banking system. In this regard, in accordance with Art. 44 of this law, a special system of supervision of the activities of commercial banks by the Regulator has been created. Their functioning is subject to more stringent rules than those on the basis of which the activities of other commercial organizations are based.

Bankruptcies of commercial banks cause much more damage to the economy compared to damage from the bankruptcy of commercial banks. This is due to the fact that bankruptcies of commercial banks cause problems in the payment system, and, as a result, painful consequences for customers in different sectors of the economy. At the same time, running a business is always associated with risk, which, like a crisis, is an integral element of economic development. In this connection, the task of purposeful reform of the banking system, in our opinion, should be the reduction of all types of risks and, above all, the achievement of controlled risk at the system level as a whole.

Management at all stages of the life of commercial banks should implement a set of measures aimed at preventing the bankruptcy of commercial banks, as well as crisis prevention. At the same time, the emphasis should be placed precisely on preventive crisis management, the improvement of which should be one of the priority directions of development of the banking system.

The modern management of commercial banks is a combination of perspective, consisting of tactical (medium-term) and strategic (long-term) regulation, and operational management. At the same time, forward-looking management is the process of defining the organization’s goals and deciding what needs to be done to achieve them, and operational management is how to act in the existing economic circumstances in order to achieve the fulfillment of goals.

Effective management implies timely anticipation of changes, adaptation to them and control of the processes of transformation and development for the benefit of the clients of commercial banks, its shareholders, employees, certain social groups and society as a whole. It also implies the continuous strengthening of strengths, the realization of new opportunities, as well as the reduction of risks, the elimination of dangerous situations and the elimination of internal weaknesses.

Management in a stable situation and in crisis, that is, crisis management, have a common object of management, a common subject of management. The set of methods, technologies, management and financial mechanisms of management in a stable situation covers the methods and mechanisms of anti-crisis. Thus, any management includes elements of crisis management, and depending on the situation, their volume may be different.

Blyakhman L.S. singles out in the management as a management science three main sections: general, functional, and anti-crisis [1, p.7]. The specifics of crisis management include the need for increased intensity of application of tools and methods for overcoming an organization-threatening situation, due to the fact that during a crisis management actions have only two options for the final result: bankruptcy or successful overcoming of the crisis. Overcoming the crisis requires high

complexity and quality management. This indicates that within the framework of crisis management, those management tools are used that are most effective in eliminating financial difficulties and solving organization problems.

Crisis management in a broad sense has the goal to prevent bankruptcy and prevent a crisis. Taking into account also the preventive nature of crisis management, it follows, as Kirsanov KA notes, that management in a crisis and stable situation partly coincide in the temporal aspect, that is, carried out in parallel [2, p.6]. In our opinion, this statement requires clarification. Indeed, crisis prevention must be carried out constantly, and this is what KA Kirsanov means when he talks about the coincidence of the two types of management in the time aspect. At the same time there are exceptions, which include the crisis. In a situation of crisis, management in a stable situation is completely absent, as it is exclusively anti-crisis in nature. In other words, “management becomes anti-crisis as it enters the crisis development of the organization” [3, p.131].

In a market economy, crises are a natural and natural phenomenon both at the level of the economy as a whole (recovery, boom, recession, depression) and at the level of individual economic actors (organization life cycle). In this regard, crisis management is not an episodic phenomenon, but a permanent, objectively conditioned and necessary. At the same time, in the conditions of the increased dynamics of destructive changes in the economic sphere, both on a national and global scale, organizations constantly have to face crisis situations, and, therefore, management, above all, is anti-crisis in nature.

The main thing in both crisis management and management in a stable situation is an accelerated and effective response to significant changes in the external environment based on previously developed alternative options, which are based on, as prof. Gryaznova AG, “lies the process of constant and consistent innovations in all links and areas of action” [4, p.7]. This testifies to the central place of crisis management in the management of the organization, in the sphere of which stress testing can be classified as one of the most relevant innovations, which makes it possible to effectively conduct a comprehensive predictive assessment of the organization’s sustainability to various risk factors, taking into account the country's economic potential.

Crisis management in modern commercial banks should include a central functional subsystem of organization management, which is complex and aimed at preventing or eliminating crisis situations that threaten the existence of commercial banks. Through the use of the full potential of modern management, the development and implementation of a special strategic program, it should allow to eliminate temporary difficulties, preserve and multiply market positions under any circumstances.

At present, the complexity of economic processes, the instability, and variability of the organizational and economic environment have increased immeasurably, as a result of which management has been characterized by an increased volume of elements of crisis management. Based on this, the goal of managing the banking system in modern economic conditions is to consider not so much the development of the system and the improvement of the welfare of the nation, but the maintenance of the system’s stability, the promotion of economic and social stabilization and even the prevention of the collapse of the entire banking system.

Accordingly, in the crisis management of commercial banks, the goal of ensuring the stable functioning of these organizations is put in the forefront, since the stability of the banking system depends directly on the stability and balance of the aggregate of individual commercial banks.

In his scientific work “The Sustainability of the Banking System: Management Mechanisms, Regional Features” Ilyasov S.M. notes that in the general case, by stability they understand the property of the system to return to the equilibrium or close to it mode after exiting it as a result of any influence [5, p.7]. An unstable system does not return to a state of equilibrium, from which, for one reason or another, it has left, but is continuously moving away from it, or makes unacceptably large fluctuations around it. Stability is one of the main dynamic characteristics of the control system, on the basis of which the system’s performance is largely detected, since for normal operation the control system must be insensitive to extraneous disturbances. In order to be sustainable, the system must have the ability to self-regulate, independently adapt to changes in operating conditions, that is, be adaptive.

Analysis of the state of the modern banking system revealed the following indicators and causes of its instability:

1. Insufficient capitalization of commercial banks according to international standards: this explains their inability to compete with Western institutions, low inflow of investments in the real sector of the economy and poor lending to the population. The ratio of capital of the banking system and gross domestic product is less than the level of not only developed countries, but also many countries with transitional economies.
2. Low quality of capital in commercial banks, despite the formally positive growth trend, if you do not take into account the events of the last year. “The most painful point in the banking system is the practice of “ inflating” the capital of banks through various kinds of dummy schemes.” After the transition to international financial reporting standards, a number of commercial banks will have to “clean out” circular schemes for inflating capital, and, therefore, their capital adequacy ratio will decrease.
3. Inaccurate financial statements and remaining differences between national and international accounting and financial reporting standards, as a result of which the supervisor presents an incomplete picture to assess the financial condition of commercial banks and the actual value of its capital. Profit in the amount of only slightly less than the assets of commercial banks is in many respects the “merit” of accountants who made up the balance sheet. There are still a number of examples of this kind, indicating that many of the successes of commercial banks on closer examination turn out to be the fruit of work not so much of the departments responsible for active operations as accountants (including due to the manipulation of the creation of reserves for loans and impairment of valuable papers). As a result, the situation in many commercial banks may be worse than reporting shows.
4. Imbalance of liabilities and assets by types and terms. The lack of long-term resources (“long money”) from commercial banks led to a contradiction between the prevailing short-term liabilities of commercial banks and the need of commercial banks for long-term loans and at the same time became one of the main problems that killed the largest commercial banks that were engaged in lending before the 1998 crisis real sector, including long-term. In subsequent years, commercial banks, taught by the experience of 1998, sought to avoid lending to the real manufacturing sector, and became increasingly interested in paying the game to the stock market with temporarily free customer money. This, of course, contributed to the fact that in recent years in Uzbekistan, the virtual stock market has grown “confidently” and quickly. However, as a result of changes in the global financial environment in late 2007 - early 2008. Stock markets collapsed, commercial banks recorded huge losses, they had huge “holes” in

their balance sheets, and as a result, there were significant problems with lending, return on previously issued loans and the stability of the banking sector as a whole.

5. Insufficient territorial diversification of commercial banks with excessive concentration in the capital and underdevelopment of banking services in the regions. Of the largest commercial banks, almost 95% are registered in the capital. The monopolization of the market adversely affects the rates and rates of commercial banks. There is no competition - the quality of work decreases, the interest in expanding the range of services offered to customers.
6. Outdated management style. The probability of bankruptcy of commercial banks in the long term is determined, first of all, by its strategy and management. The causes of the crisis of the banking system should be sought, first of all, within the commercial banks themselves. This, as a rule, is the inability to properly balance the portfolio of assets, insufficient capitalization, non-professional risk management, and the level of management and banking technologies that do not meet modern requirements. One of the main reasons for the bankruptcy of some commercial banks is unqualified management and ignoring the degree of risk in conducting banking operations, and, above all, credit. Despite the fact that for commercial banks of any size the principle of profitability and maintaining liquidity should be the basic principle, many commercial banks neglected it.
7. High concentration of risks. A number of large commercial banks turned out to be the main source of instability, while medium and small ones found the ability to adapt to the changed macroeconomic conditions and a higher level of risk. This confirms the thesis that an artificially pushed concentration of bank capital in the conditions of systemic instability means a concentration of risks.

Poor management and negative external factors can lead to a crisis of commercial banks, which becomes apparent when existing reserves and capital base cannot cover all losses on assets. A commercial bank becomes insolvent, that is, unable to fulfill obligations to depositors.

Important for the effective use of anti-crisis measures to improve the financial sustainability of the organization is the timely identification of the causes of complex negative processes in the banking sector. The state of the banking system is defined as the state of the elements - commercial banks, and the state of the national and world economy.

The factors of banking crises can be divided into external and internal. External factors include:

Macroeconomic: inadequate macroeconomic policies; macroeconomic imbalance; substantial budget deficit and public debt; deterioration in the terms of trade; rising real interest rates and inflation; sharp devaluation of currency; financial instability; capital outflow; a decrease in confidence in the financial system caused by negative indicators of its condition; decrease in gold reserves; high lending growth; financial liberalization processes.

Institutional: institutional underdevelopment of the financial system; undeveloped legal framework and poor enforcement of laws and regulations; deficiencies in the supervision and regulation of the banking system; non-compliant asset classification systems and standards for creating reserves for possible losses; lack of the necessary conditions for effective supervision; deficiencies in accounting, auditing and reporting; low quality of disclosed financial statements; inadequate incentive system; deposit insurance system (the absence of an effective deposit insurance system or, on the contrary, too obvious deposit guarantees, which entail excessively risky investments); unsettled (or inappropriate to the established standards) ties between companies and commercial banks.

Internal factors include microeconomic factors, including:

- quality of bank management and corporate governance features; excessive credit expansion, the reverse side of which is the deterioration of the quality of the loan portfolio, an overestimation of loan collateral, an increase in credit risk;
- Insufficient motivation of the management of commercial banks to prudently conduct business; non-market motivations for issuing loans (lending to affiliates, targeting one borrower);
- Human factor (inexperience, incompetence, wastefulness of staff, propensity to speculation, fraud or dishonesty);
- Current standards of business ethics and morality.

The combination of macroeconomic, institutional and microeconomic factors of banking crises is manifested in specific forms of the crisis state of commercial banks.

Basically, many forms of the crisis state of commercial banks occur due to omissions and deficiencies of management in the organization. In particular, as a result of inadequate leadership training; poor management organization; insufficient business diversification, a narrow range of services; neglect of the development of promising banking technologies; insufficient information and analytical support; the unsatisfactory state of the accounting system; deficiencies or absence of risk control mechanisms; unsatisfactory work of internal audit and control; unwillingness of management to prevent crises.

The stability of the banking sector depends, first of all, on the stability and balance of individual commercial banks as its constituent elements. The prevention of a crisis, that is, the smoothing of unbalanced changes affecting the state of a system of factors, internal and external, can theoretically occur both from within and from outside the system. However, in the case of the banking system, preventing the crisis from the outside seems to be a difficult task due to the need for too large-scale and costly intervention, time consuming in the implementation of anti-crisis measures, limitations in opportunities, control and impact on the situation. Whereas, to prevent a crisis from the inside, that is, directly in a separate commercial bank, the necessary conditions exist (the possibility of instant response and direct influence). At the same time, according to Vasilyeva I.L., the external impact on the banking system can be much stronger than the internal potential of the system to smooth it out, which means that not every crisis caused by external causes can be prevented. In our opinion, within the framework of the safety margin, the system itself can prevent a crisis and the influence of risk factors (from within) [6, c.74]. Further overcoming of financial instability beyond the existing margin of safety will require external intervention, that is, influence on the situation “from the outside”. An example of this is the systemic financial crisis of 2008–2009, when the strength reserves of systems in different countries turned out to be insufficient and it was necessary to resort to external assistance in the form of increased external borrowing, the use of complex debt restructuring mechanisms, etc.

At the same time, external sources of financing in the period of the world crisis affecting the economic sector are not readily available, which is obvious. Therefore, a systemic banking crisis, as well as a crisis in any economic system, must be strived to prevent, first of all, “from the inside,” in this case, by building up the safety margin of individual commercial banks by improving management and, in particular, managing the organization’s crisis management. innovative, modern, progressive methods. This highlights the crisis management of commercial banks, which plays a key role in stabilizing the entire banking system of the country.

The Regulator is set not to reactively intervene at the stage of unfolding a systemic crisis, but to prevent it through improving crisis management in commercial banks, including preventive, by creating a comprehensive and effective regulatory framework and supervisory system. One of the most important areas for improving crisis management is the introduction of the institution of supervision into the practice of the Regulator.

There are two main methodological approaches to crisis management: preventive (proactive) and reactive. The first is aimed at anticipating a crisis situation, its prevention and preparation for it, the second is focused on creating an effective mechanism of crisis management, which is activated when a crisis situation occurs. Moreover, it should be noted that in the foreign literature the importance of preventive crisis management is emphasized, while the domestic literature often gives priority to the reactive direction of crisis management.

In the context of the need to interpret the concept of crisis management in relation to the banking system in a broad sense, various methodological approaches to its implementation are used.

The essence of the system of preventive crisis management is that the threat of bankruptcy is diagnosed in the early stages of its occurrence, which allows for the timely activation of special protection mechanisms. If these mechanisms and procedures, due to their untimely or insufficiently effective implementation, did not lead to the financial rehabilitation of commercial banks, it is facing the need to take more radical measures to get out of the crisis.

An effective method of preventive crisis management, which is based on constant monitoring of the external and internal environment in order to early diagnose the looming threat of crisis, is stress testing. His toolkit combines the strategy and tactics of crisis management. It is fair to say that such famous scientists as A. Gradov, Ph.D. and Kuzin B.I. In their work "Strategy and tactics of firm management" they note that the complexity of the identified problem lies in the fact that, on the one hand, "strategic decisions aimed at preventing a crisis should be made and implemented in the early stages of management, when the process of moving towards the crisis has not yet acquired a cumulative character and therefore has not become irreversible" [7, p.41]. On the other hand, decisions made at the early stages are based, as a rule, on very weak and therefore not always reliable signals about the occurrence of unfavorable trends.

Tactical decisions, unlike strategic ones, are made on the basis of more complete and accurate information reflecting the current state of commercial banks. However, the time for a radical restructuring of the organization's activities in order to prevent a crisis is either very little or not at all. In this case, it is either emergency measures to prevent a crisis, which can be implemented in a short period of time, or measures aimed at overcoming the crisis that has already come.

The crisis of commercial banks, as already noted, may be caused by a large number of factors, different in the degree of their control of the organization, which are interrelated and interdependent. For the full coverage of crisis factors, observation in the framework of stress testing should be organized over a variety of external and internal environment parameters characterizing the conditions of operation of commercial banks. If you monitor, for example, 50 parameters, then the set of signals about the emergence of the initial economic phenomena of the mechanism of the development of the crisis state of the organization increases exponentially. Taking into account possible modifications of multidirectional effects, it becomes clear how difficult it is to solve the problem of detecting crisis signals in real life. Such complex and complex tasks are designed to solve stress testing.

In this regard, the most appropriate way to solve the problem of avoiding a crisis is to make a commercial bank resilient to crisis impact due to its ability to smooth out (level) unbalanced changes affecting the state of organization of internal and external factors and create a safety margin.

The main forms of reactive crisis management are the following: restoring liquidity (ensuring current solvency); capital recovery (cost reduction, recapitalization); restoration of profitability (ensuring profitability of operations); restoration of reputation (stopping customer churn); substance preservation (preservation of key specialists and technologies).

Thus, within the framework of anti-crisis management of commercial banks, several functional areas can be distinguished depending on the object of management: anti-crisis financial management (liquidity, capital, profitability management), anti-crisis management of reputation and image, personnel and security of commercial banks.

Foreign economists pay great attention to studying the internal susceptibility of commercial banks to a crisis (vulnerability), since in the end it is they who determine whether the organization can prevent or overcome the crisis in time.

In the structure of commercial banks, there must necessarily be created, firstly, departments (groups) that are engaged in the analysis of the loan portfolio, liquidity, other indicative activities and financial stability of commercial banks, including marketing analysis and strategic planning, and secondly, the internal control department (audit), which is designed to perform monitoring and analytical functions.

In practice, foreign credit organizations, as a rule, use standard anti-crisis solutions and anti-crisis programs, the development of which would be expedient for credit organizations, as well as in the development of which stress-testing tools could provide substantial assistance. At the same time, they should be variant (scenario analysis), not unambiguous, which is typical for stress testing, and should also be reviewed and corrected at regular intervals, and should allow deviations in cases when the working conditions of commercial banks deviate from clearly defined conditions for which was developed corresponding standard anti-crisis solution.

In order to develop an anti-crisis solution, an expert-analytical method is most often used, which consists in surveying and analyzing commercial banks by qualified specialists with the involvement of its managers and other employees in order to identify specific features, problems in the work of the management apparatus, as well as develop rational recommendations on its formation or restructuring, based on assessments of the effectiveness of the organizational structure, rational management principles, experts as well as the compilation and analysis of the most advanced trends in banking technology and management.

The timeliness of the beginning of active anti-crisis measures is the key to the success of work to prevent or overcome the crisis.

CONCLUSION

1. It has been established that modern management of commercial banks is a combination of perspective, consisting of tactical (medium-term) and strategic (long-term) regulation, and operational management. At the same time, forward-looking management is the process of defining the organization's goals and deciding what needs to be done to achieve them, and

operational management is how to act in the current economic circumstances in order to achieve the goals.

2. Based on the study of the theory of management, it was asserted that management in stable conditions and management in a crisis situation, that is, crisis management, are interrelated. They are not episodic, but permanent, objectively determined and necessary actions. They have a common object of management, a common subject of management, often coincide in a temporal aspect. The set of methods, technologies, management and financial mechanisms of management in a stable situation covers the methods and mechanisms of anti-crisis. Thus, any management includes elements of crisis management, and depending on the situation, their volume may be different.
3. It is revealed that at present the complexity of economic processes, instability, and variability of the organizational and economic environment have increased immeasurably, as a result of which management has been characterized by an increased volume of elements of crisis management. On this basis, the goal of managing the banking system in modern economic conditions is to consider not so much the development of the system and the improvement of the welfare of the nation, but the maintenance of the stability of the system, the promotion of economic and social stabilization and even the prevention of the collapse of the entire banking system. In this regard, management in modern commercial banks should include the central functional subsystem of the organization's crisis management, which is complex in nature and aimed at preventing or eliminating crisis situations that threaten the existence of commercial banks.
4. According to the task of the study, the place of stress testing in the management system was clarified: it was proposed to consider it as a direction of risk-oriented management, combining elements like perspective, hook and operational crisis management.
5. Summarizing the available information on the theory and practice of stress testing allowed to clarify and update its concept. Stress testing is a process that allows you to regularly carry out a promising comprehensive analysis of the sensitivity of an organization's state to changes in risk factors that correspond to extreme, but probabilistic events, in order to develop a preventive anti-crisis program. Moreover, an organization should be understood not only a credit institution, but also any operating organization, although it is in the banking sector, which is characterized by an exceptional variety of operational and financial risks, stress testing takes on the specifics of a highly multivariate analysis.
6. The role of stress testing at the micro level is defined, which is to regularly determine the thresholds for the actions of the management of commercial banks that bear certain risks (self-diagnostics), and ultimately increase the internal threshold of the organization's resistance to various types of risks. The role of stress testing at the macro level is that this tool of crisis management allows the system, in this case, banking, to adapt independently to changes in the conditions of functioning, that is, to be adaptive. Stress testing should be present at all stages of organization management, however, directly in a crisis situation, stress testing alone will not be enough, it will be necessary to use serious crisis recovery mechanisms.

REFERENCES

- Blyakhman L.S. (1999). Fundamentals of functional and crisis management. - SPb .: Publishing house Mikhailov V.A.
- Kirsanov K.A., Popov S.A. (1999). Crisis management: Tutorial. - M .: MAEP, IIC "Capital", "Assembly".

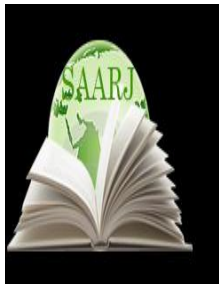
Korotkov E.M. (2001). Crisis management. - M.: Infra-M.

Anti-crisis management // Ed. prof. Dan. Gryaznova A.G. - M.: Publishing house EKMOS, 1999.

Ilyasov S.M. (2001). The stability of the banking system: management mechanisms, regional characteristics. - M.: UNITY-DANA.

Vasilyeva I.N. (2001). Anti-crisis management of a commercial bank as the basis for preventing the crisis of the banking system // Abstracts of the report at the International Scientific and Methodological Conference (March 27-30, 2001), ed. E.A.Utkina.

Strategy and tactics of crisis management company // Pod obsch. ed. Prof., Dr.E. Gradova A.P., Prof., Doctor of Economics Kuzina B.I. - SPb.: Special literature, 1996.



SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: **10.5958/2319-1422.2019.00007.9**

FAIR TARIFF POLICY IN INSURANCE: THEORY AND METHODS OF CALCULATION

Abdurakhmanov Ilyos*

* Head of Department for Insurance,
Tashkent Financial Institute (TFI), UZBEKISTAN
Email id: aix@mail.ru

ABSTRACT

This article is devoted to studying tariff policy of insurance companies. There are disclosed issues of establishing a fair tariff policy at different stages of development of the insurance product. We have considered the structure of insurance tariff. There are given methodology of actuarial calculations in determining tariffs. As an example, we show unified tariff calculation methods and methods of historical data processing for each type of life insurance.

KEYWORDS: *Insurance Tariff, Insurer, Insurance Product, Insurance Premium, Actuarial Calculation.*

1. INTRODUCTION

Tariff policy of the insurance company is the insurer's business. This involves development, adjustment and regulation of insurance tariffs for the benefit interests of profitable (at least breakeven) insurance development. Any insurance company carries out a number of activities to increase/decrease the ratios on insurance products. This should be acceptable from the point of view of consumers and the profitability of the insurance product.

The insurance company is recommended to follow some main principles of the tariff policy, such as the equivalence of relations between the insurer and the insured, availability of tariffs to all categories of consumers, stability of the size of tariffs, expansion of the insurance base, self-sufficiency and profitability, differentiation of the tariff rate depending on the insurance object.

We can find a lot of articles on how to determine the effectiveness of tariffs set for insurers and for policyholders. However, our article is devoted to generalization and unification of existing methods of calculation, definition of new ones. Therefore, this article aims to study the best methods for calculating insurance tariffs. We have cited as an example a step-by-step instruction for calculating tariffs for life insurance, taking into account various aspects and risks.

2. LITERATURE REVIEW

Insurance service has its own use value and price. In case if an insured event occurs, user value transforms into the form of insurance compensation, covering the losses of injured person under the contract terms (Glenn, 2003).

Cost of insurance services is demonstrated in the insurance tariff which the insured pays to the insurer (Gollier, 1996). An insurance tariff represents an insurance premium rate per unit of insurance amount taking into consideration the insurance object and the nature of the insured risk (Gollier, 2000).

Cost of insurance services fluctuates under the influence of market supply and demand (Ewold, 1991). The lower limit is determined by the equality between the insurance receipts and pay-outs of insurance compensations and insurance sums under contracts plus expenses of the insurance company. The upper limit of the price for insurance services is determined by the size of demand for services and amount of bank interest on deposits.

Profitability of various types of insurance cannot be constant and depends on the phase of life cycle on which the insurance product is currently presented. Stages in the life cycle of an insurance product: introduction to the market, growth in demand, saturation and maturity, a decline in sales and exit out of the market (Adams, 1996).

Supply of new types of insurance reflecting the emergence of new needs becomes a main tool in market competition.

Cost of the insurance service has a certain structure, its certain peculiar elements should provide funding for all functions of the insurer. The economically justified insurance premium structure is important for the efficient performance of the insurance company. This serves as a basis for developing a financial plan of the insurance company, predicting marginal amounts of certain types of expenses, and constitutes the basis for the correct determination of the taxable base, as well as guarantees insurance premiums for the insured (Siddiqui and Sharma, 2010).

Net premium is designed to execute an insurer's financial obligations to the insured (Gründl and Schmeiser, 2007). This insurance premium will have not been determined at the time of calculation yet. It is possible to calculate it on the basis of the data on damages for the previous period, their frequency, average value and distribution. In accordance with the equivalence principle, expected value of damage serves as the minimum risk premium. However, this amount is not adequate to ensure a high probability of insurance coverage in the required amount. It has been justified that even with very accurate and reliable information the actual damage exceeds its expected value in 50% of cases (Branda, 2014). As a result, insurance companies incur losses every two years due to the so-called "insurance technique". With the aim of providing customers with a guarantee for insurance protection, a net risk premium is supplemented with a risk loading. The purpose of the risk loading is to finance the random deviations of the actual damage from the expected indicators. In addition, an insurance premium plays a big role in reducing the other components of the insured risk associated with information errors.

Therefore, the most important task in the justification of the insurance premium is the calculation of the net risk premium. Calculation should be in such a way that it is highly likely to cover potential damages in future in order to guarantee the execution of insurance obligations.

The initial point in justification of the calculation method is to create a pattern for the calculated risk. To determine the random pattern in terms of frequency and size of damages, we need the information for the past period. Therefore, errors should be minimized as much as possible. Reducing the risk of errors is associated with the expansion of the aggregate of information which constitutes the basis for the tariff calculation.

Tariffing by predetermined risk factors is accompanied by the danger of not observing hidden factors (Moiseev and Jurevič, 2015). In this case, it is recommended to differentiate the initial data to the extent of study of the specific features of individual risks. Thus, when creating an initial base for tariff calculations, three types of information are used: data of individual damages on single risks, damages on tariff groups and data on the entire risk aggregate.

An insurance contract is a bilateral transaction whereby the insured pays an insurance premium, and an insurer assumes responsibility to pay the sum insured upon the occurrence of the insured event (Huang, 2006). Insurance premium is the price for such a transaction. The premium must be sufficient to cover the expected claims during the insurance period, creation of insurance reserves, coverage of the costs of the insurance company to do business, ensuring a certain amount of profit.

To make an insurance contract valid it is necessary to indicate randomness in it. As a result, at the time of the contract conclusion an insurer will not know whether the insured event will occur under the contract and if it happens, when exactly and in what extent. The randomness element must be applied to both an insured and an insurer.

Thus when calculating insurance tariffs it is necessary to evaluate random phenomena quantitatively, which, in turn, requires the use of special approaches based on the principles of probability theory and mathematical statistics.

3. Methodology for actuarial calculations.

Actuarial calculations are based on insurance statistics. Its data is used to predict the statistical probability of the insured risk. The analysis of the information received enables to predict the future amount of damage.

Below are the formulas for the articles Gollier (2014). To determine a calculated rate we use the following indicators:

n – number of insurance objects;

e – number of insurance events;

m – number of objects damaged as a result of the insured events;

$\sum p$ – amount of insurance premiums;

$\sum q$ – amount of insurance indemnities;

$\sum S_n$ – sum of the objects insured;

$\sum S_m$ – sum of the objects damaged.

1. Frequency of insured events is determined according to the formula:

$$\frac{e}{n}; \text{Result} < 1$$

This ratio illustrates the number of insured events cases per one insurance object. Moreover, a single insurance event may cause several insured events.

2. Cumulation coefficient is determined according to the formula:

$$\frac{m}{e}; \text{Result} \geq 1$$

This coefficient demonstrates the number of insured objects covered by this or that insurance event, i.e. how many insured events may happen.

3. Loss ratio:

$$\frac{\sum q}{\sum S_m}; \text{Result} \leq 1$$

This ration is less than 1, as it would indicate destroying insured objects more than once.

4. Average insurance sum per one insurance contract:

$$\frac{\sum S_n}{n};$$

5. Average insurance sum per one damaged object:

$$\frac{\sum S_m}{m};$$

6. Each of the damaged objects of the insurance aggregate has its own individual insurance sum, which deviates from the average value. The ratio of average insurance sums is called the risk burden which is calculated by the formula:

$$\frac{\sum S_m}{m} : \frac{\sum S_n}{n} = \frac{S_m}{S_n}$$

The application of this indicator enables to assess and reassess the frequency of the insured event occurrence.

7. Loss ratio of insured sum:

$$\frac{\sum q}{\sum Sn}; Result < 1$$

8. Loss ratio norm:

$$\frac{\sum q}{\sum p} * 100\%; 0 < Result < 100\%$$

9. Loss frequency:

$$\frac{e}{n} * \frac{m}{e} = \frac{m}{n};$$

Analyzing periodic statistical data, the insurer has the ability to identify positive and negative factors affecting the performance of insurance companies.

4. Recommendations on calculating tariff rates in life insurance

Life insurance provides insurance protection for the insured person by means of insurance payments if he lives up to a certain age or at the end of the insurance period, as well as in case of death (Haberman and Pitacco, 2018). The probability of living up to a certain age or the expiration of the insurance period depends on the age of the person at the time of the insurance and the effective term of the life insurance contract. A special methodology is used to compile a mortality table. Tables are periodically updated in accordance with changes in demographic statistics. They contain specific figures illustrating mortality rates for each age per 100 thousand population. The survivors consistently decrease in the transition from one age group (lx) to another group ($lx + 1$) which is 1 year older. The methodology consists of 3 stages.

Stage 1. Calculation of probability of surviving and death.

a) the probability of death upon transition from age x to age $(x + 1)$ is determined:

$$q_x = \frac{d_x}{l_x};$$

Here:

q_x - the number of deaths upon the transition from age x to age $(x + 1)$.

$$d_x = l_x - l_{x+1};$$

l_x - number of persons at the beginning of the insurance.

b) the probability of survival of a person at the age of x years up to the age $(x + 1)$:

$$p_x = \frac{l_{x+1}}{l_x};$$

Here $p_x = 1 - q_x$.

Stage 2. Calculation of discount factor.

Since the insurance company uses received insurance resources as credit resources when obtaining a certain income, then while calculating the tariff rate, the rate of return (interest rate) – i is taken

into account. To reduce the increasing interest on the amount of insurance premiums, when calculating the net rate, discounting is carried out using a discount factor:

$$V^n = \frac{1}{(1+i)^n};$$

Here:

V^n – discount factor;

i – investment yield ratio;

n – insurance term.

Stage 3. Calculation of the lump-sum tariff rate on the life insurance.

A lump-sum involves payment of an insurance premium at the beginning of the insurance. With this form of payment, the insured immediately redeems all his obligations to the insurer upon entering into the contract. However, a one-time payment procedure is not always convenient for the insured. Therefore, quite often insurance companies offer customers the possibility of paying insurance premiums annually, quarterly, monthly. The contributions of the insured are determined using annuities.

In practice, sometimes it is necessary to calculate tariff rates for different age groups, genders and insurance terms. Therefore, to unify the calculations, special commutation numbers are used. Universal commutation numbers have been developed by Gorelik (2002). The final form of the formula with commutation numbers is as follows:

a) Lump-sum net-rate for a person at the age of x years:

- endowment insurance for the insurance term of n years:

$${}_nE_x = \frac{D_{x+n}}{D_x} * 100;$$

- insurance for a fixed period of time:

$${}_nA_x = \frac{M_x - M_{x+n}}{D_x} * 100;$$

- whole-life insurance:

$${}_nA_x = \frac{M_x}{D_x} * 100;$$

b) Annual net-rate for a person at the age of x years:

- endowment insurance for the insurance term of n years:

$${}_ne_x = \frac{D_{x+n}}{N_x - N_{x+n}} * 100;$$

- insurance for a fixed period of time:

$${}_na_x = \frac{M_x - M_{x+n}}{N_x - N_{x+n}} * 100;$$

- Whole-life insurance:

$${}_n a_x = \frac{M_x}{N_x} * 100;$$

It should be noted, that this methodology for calculating tariff rates in life insurance is of an advisory nature and may not comply with the methodology approved by the legislation of a particular country.

5. CONCLUSION

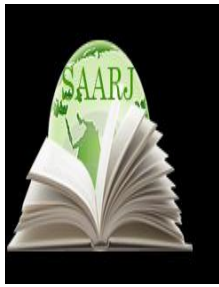
In conclusion, we note that any insurance service (product) has its price, and the success of the insurance company depends on the pricing. By setting a tariff, competitiveness can be achieved, or low profitability or profitability. Therefore, it is important to take into account market conditions, a lot of background historical information. The article examined aspects of life insurance, which provides insurance protection until it survives to a certain age or up to expiration of insurance, as well as in case of death. The article was able to show an easy ways for calculating tariffs in example of life insurance.

REFERENCES

1. Adams, M. (1996). Activity-based costing (ABC) and the Life Insurance Industry. *Service Industries Journal*, 16(4), 511-526.
2. Branda, M. (2014). Optimization approaches to multiplicative tariff of rates estimation in life insurance. *Asia-Pacific Journal of Operational Research*, 31(05), 1450032.
3. Ewold, F. (1991). Insurance and risk. The Foucault effect: Studies in governmentality, 197-210.
4. Glenn, B. J. (2003). Postmodernism: the basis of insurance. *Risk Management and Insurance Review*, 6(2), 131-143.
5. Gollier, C. (1996). Optimum insurance of approximate losses. *Journal of Risk and Insurance*, 369-380.
6. Gollier, C. (2000). Optimal insurance design: What can we do with and without expected utility?. In *Handbook of insurance* (pp. 97-115). Springer, Dordrecht.
7. Gollier, C. (2014). Optimal insurance design of ambiguous risks. *Economic Theory*, 57(3), 555-576.
8. Gorelik, O.M. (2002). Algorithm for calculating investment indicators, when continuing education using insurance services. *Bulletin of Orenburg State University*, (5)
9. Gründl, H., & Schmeiser, H. (2007). Capital allocation for insurance companies—What good is it?. *Journal of Risk and Insurance*, 74(2), 301-317.
10. Haberman, S., & Pitacco, E. (2018). *Actuarial models for disability insurance*. Routledge.
11. Huang, H. H. (2006). Optimal insurance contract under a value-at-risk constraint. *The Geneva Risk and Insurance Review*, 31(2), 91-110.
12. Moiseev, A., & Jurevič, K. A. (2015). Simulation of insurance risks in agriculture.

Journal of Applied Engineering Science, 13(4), 257-264.

- 13.** Siddiqui, M. H., & Sharma, T. G. (2010). Analyzing customer satisfaction with service quality in life insurance services. *Journal of Targeting, Measurement and Analysis for Marketing*, 18(3-4), 221-238.



SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



DOI MUNBER: **10.5958/2319-1422.2019.00008.0**

CHANGING FACE OF INDIA BY RISING FACE OF INTERNET USAGE

S.Hema*; Dr C.S.G. Krishna macharyulu**

* Assistant Professor,
Accord Business School,
Chiguruwada North, R.C Road, Tirupati, INDIA
Email id: sadhanahema@gmail.com

**Professor & Director,
RVS Institute of Management Studies & CA,
Karaikal, Pandichery, INDIA
Email id: profcsgk@yahoo.com

ABSTRACT

The face of the Indian Internet user is changing rapidly. The emergence of India as a developing nation in the new technological era is marked by growing levels of Internet usage. Internet has emerged as a convenient information acquisition tool in this knowledge era. The objective of this paper is intended to focus on growth of Internet usage in India, frequency of Internet usage, Internet contribution to GDP, and which factors are contributing more in Internet growth etc. In overall the study shows how changing face of India by raising face of Internet usage. With the introduction of 3G and 4G services in India there has been a cut throat competitive in the market which has led to fall in broadband charges. This in turn has led to more number of net users in our country. Further, the report finds that 32% of the users are College Going Students followed by 26% Young Men. Among the female Internet users, the highest growth has been among the Non-Working women. A report published by Ernst and Young says combination of 4G and hand-me-down smart devices will transform media consumption in India. The only way to reach rural India without newspapers or electricity is via mobile. Text messages being quick, reliable, user-friendly, cost-effective and secured form for communicating, e-commerce and online portal vendors have found it quite easier to make use of it to run the business.

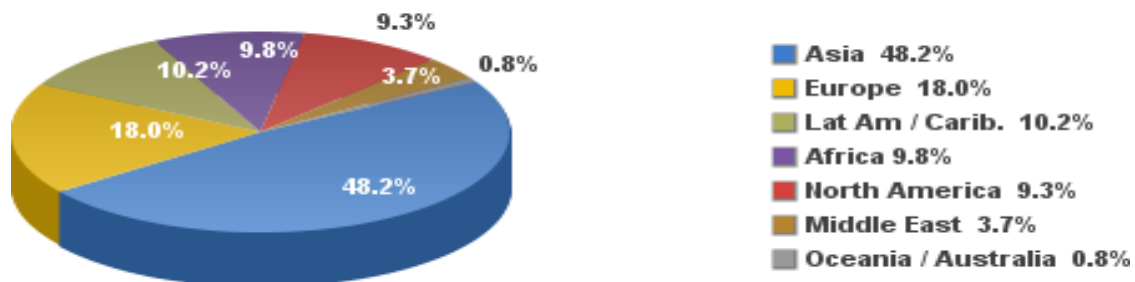
KEYWORDS: *Internet, growth, user and country.*

INTRODUCTION:

Today the whole world is revolving around Internet. Right from surfing information to accessing emails, banking transactions to buying movie tickets, connecting with friends to blogging views and thoughts, online shopping to ordering food and many more are done through Internet. No wonder we are at the crest of a digital revolution, where everything is digitalized. Internet has become a vital system in our day to day life. With the introduction of 3G and 4G services in India there has been a cut throat competitive in the market which has led to fall in broadband charges. This in turn has led to more number of net users in our country. Also change in the perception of online shoppers, acceptance of online payments and more number of users making online transaction has given a steady boost to e-Commerce in our country.

Online portals and E-Commerce industry has evolved in a long way keeping “Netizens” glued to their computers or smart phones 24/7 accessing one or the information over the Internet. Online shopping portals, electronic fund transfers, blogs, social networking sites, gaming zones, browsing web portals, processing online transaction, surfing Internet based jobs, etc have increased over a period of time.

Internet Users in the World by Regions November 2015



Source: Internet World Stats - www.internetworldstats.com/stats.htm

Basis: 3,366,260,056 Internet users on November 30, 2015

The number of Internet users in India is expected to reach 402 million by December 2015, registering a growth of 49% over last year, according to a report ‘Internet in India 2015’, jointly published by the Internet and Mobile Association of India (IAMAI) and IMRB International, on Tuesday, Nov 17.

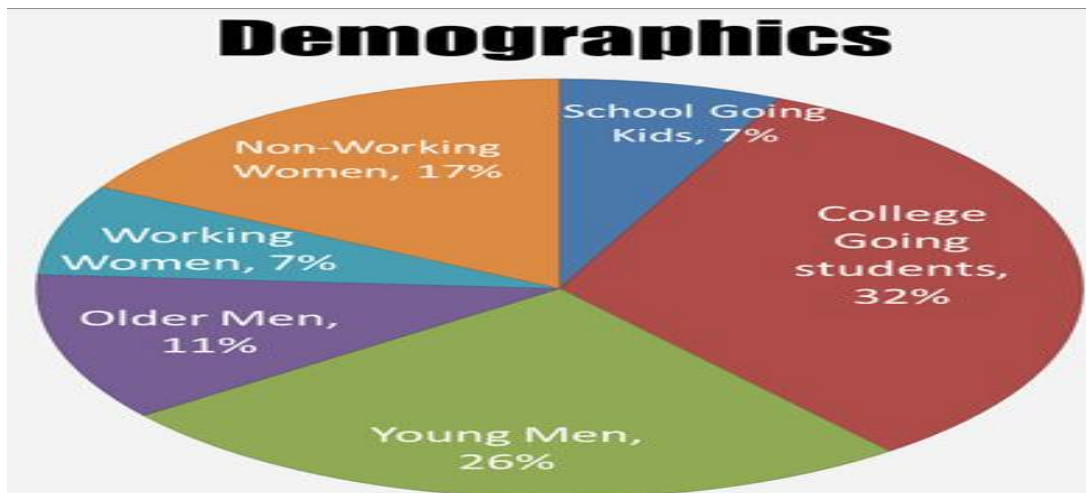
While Internet in India took more than a decade to move from 10 million to 100 million and 3 years from 100 to 200 million, it took only a year to move from 300 to 400 million users. Clearly, Internet is main stream in India today. And the large Internet user’s base is definitely good news for the overall growth of the digital industry. In October 2015, there were 375 million Internet users in India. Currently, India has the third largest Internet users' base in the world but it is estimated that by December, India will overtake the US as the second largest Internet users' base in the world.

China currently leads with more than 600 million Internet users. This makes India the second largest Internet user's base in the world behind China, but is ranked first as the largest Internet users in a free market democratic setup. According to the report, 71% male and 29% female are

Internet users in India. The Internet usage among males has been growing at a rate of 50% while it is growing at 46% for female users.

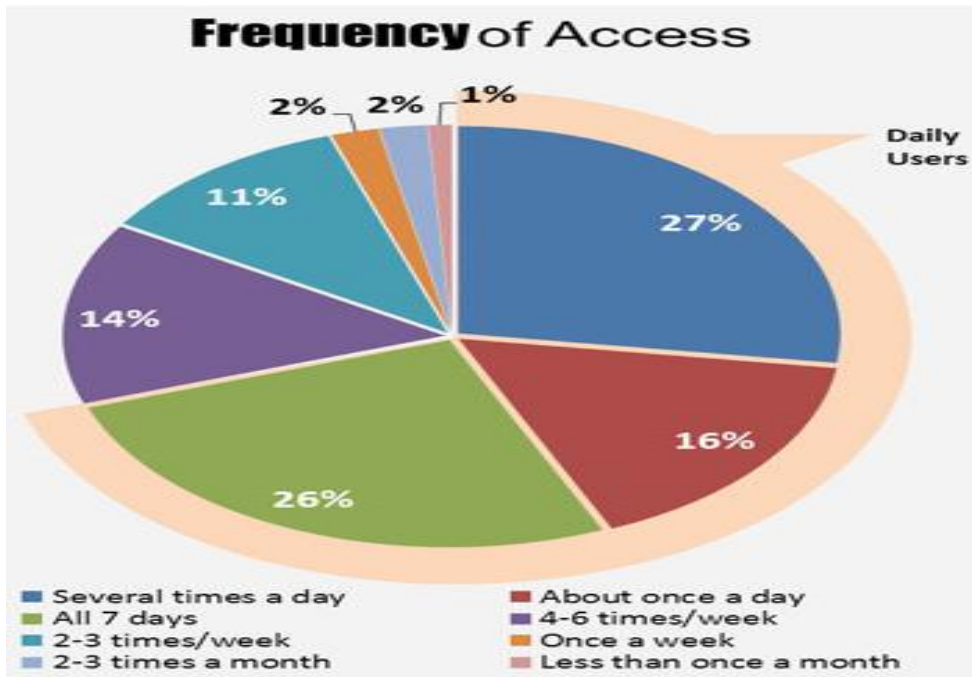
However, in Urban India, the ratio between male to female Internet users is 62:38. Significantly, Internet users among females are growing at a rate of 39% compared to 28% among males. Among the Rural Internet users, 88% are males. The Internet users among females are growing at 61% and 79% among males. 75% of the rural Internet users belong to the age group of 18-30 years. Another 11% are in the age group of <18 years, while 8% belong to 31-45 years age group.

Further, the report finds that 32% of the users are College Going Students followed by 26% Young Men. Among the female Internet users, the highest growth has been among the Non-Working women. This segment has grown by 97% over last year. This is followed by School going girls (36% growth) and College going girls (26% growth).

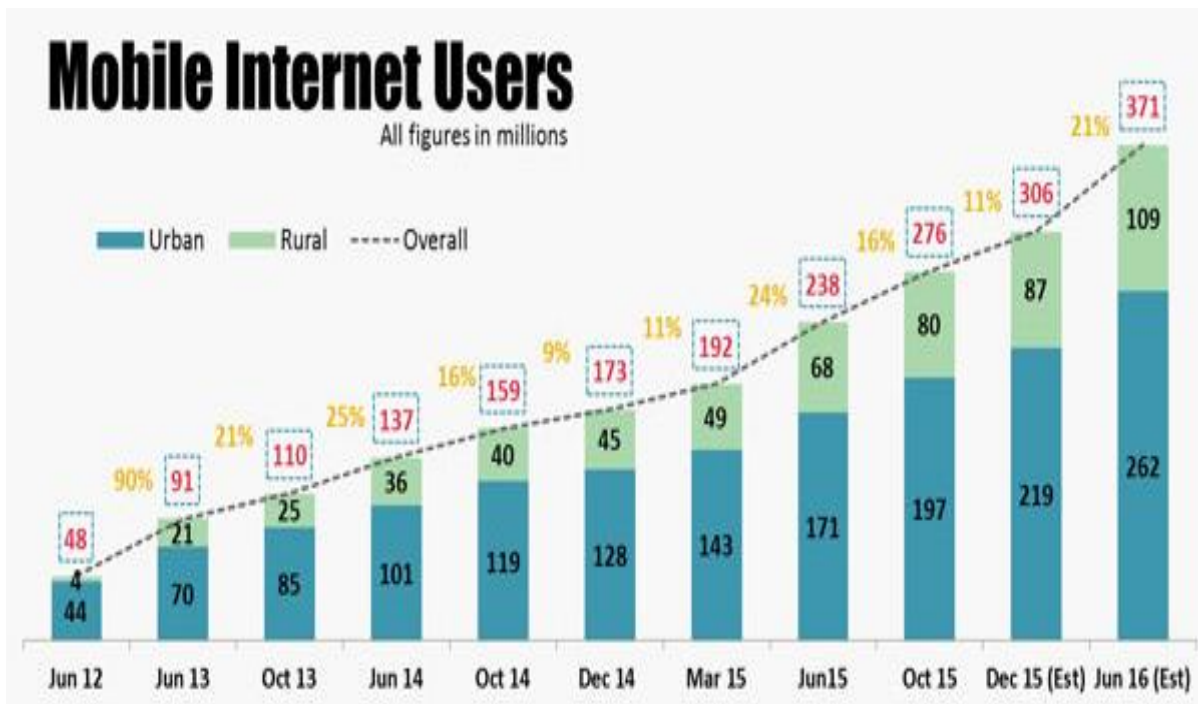


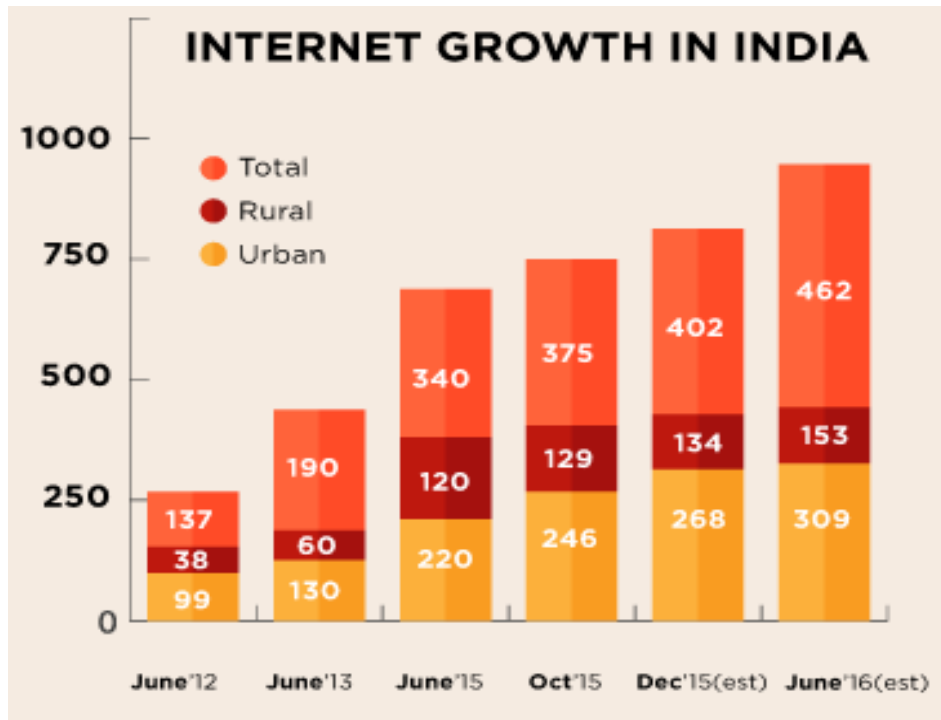
Significantly, there has been a huge spurt in the number of people accessing Internet on a daily basis in Urban India. As on October 2015, 69% of Users are using Internet on a daily basis. This daily user base has gone up by 60% from last year. However, the high frequency usage is not restricted to only the youth and the College going students; this habit of accessing the Internet daily can be seen among other demographic segments as well including Older Men and Non-Working Women.

75% of the Working Women access Internet daily. 37% of the male Internet users are daily users whereas only 23% of the female Internet users are accessing Internet daily. 75% of Internet users among both genders access Internet at least once a week. The findings of the report further reveal that in Urban India, Mobile Internet user base has grown at a rate of 65% over last year to reach 197 million in October 2015.

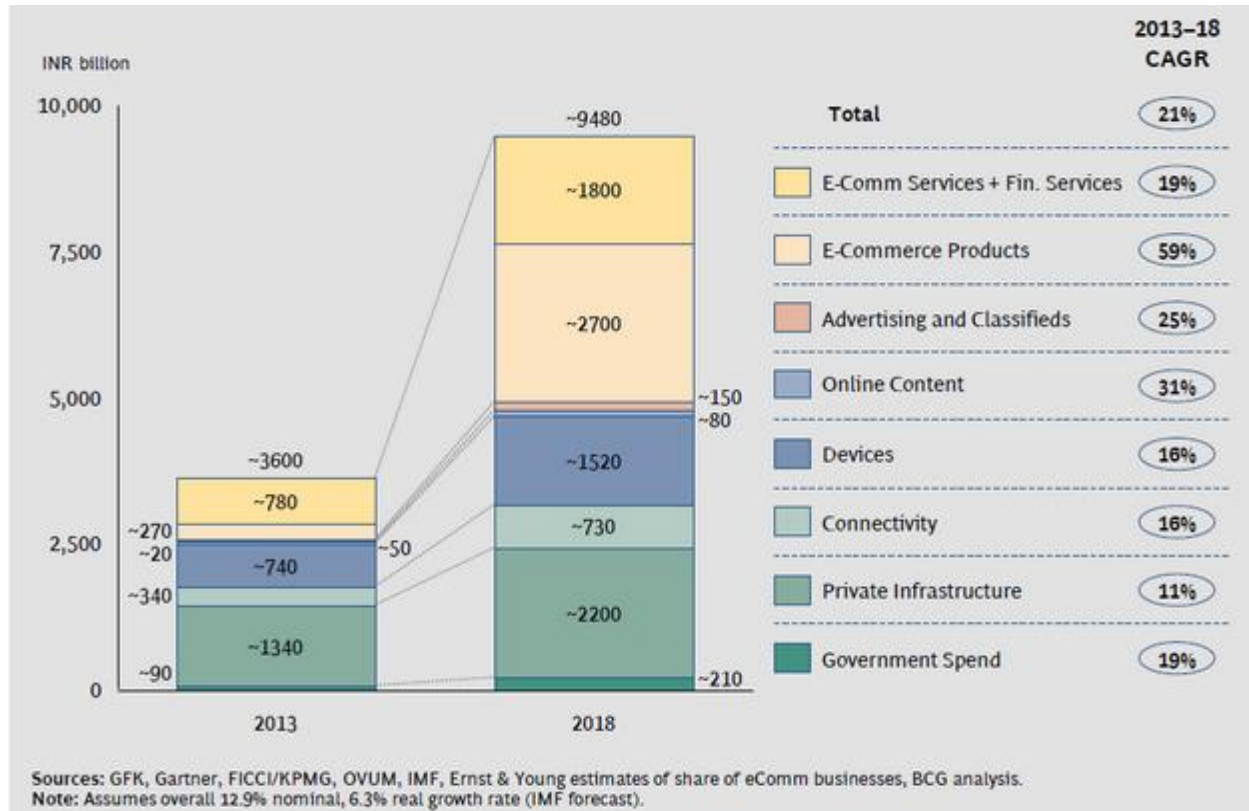


The Mobile Internet Users have surged to 80 million by October 2015 growing at 99% over last year. The user base of Mobile Internet users in Rural India is expected to reach 87 million by December 2015 and 109 million by June 2016. Interestingly, the report also reveals that out of all the Internet non-users surveyed in the 35 cities as part of this study, 11.4 million Non-Users are willing to access the Internet in the next one year and over 2/3rd of them intend to do so through mobile phones.





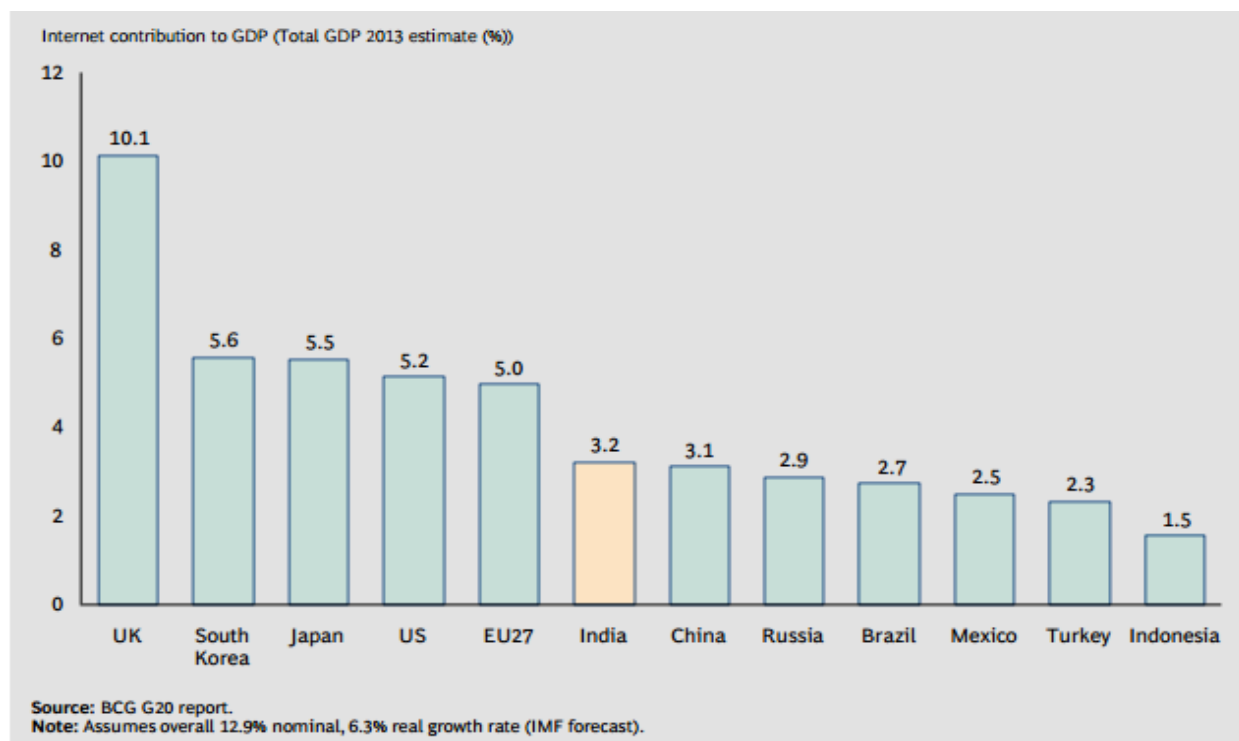
Internet Contribution to GDP



Internet Contribution to GDP Set to Grow at 23% Compared to 13% Overall GDP Growth

In 2013, Internet related contribution to GDP was 3.2 percent at USD 60 billion. This figure will rise to 4.6 percent (USD 160 billion) in 2018. Many elements together make the Internet and GDP grow. It is estimated that smartphone sales will cross USD 17 billion as devices continue to get smarter and be used for Internet services and transactions.

By 2018, 200 million individuals and 8 million SMEs will connect and perform transactions online. Users will make purchase decisions based on the information gathered online. In India and many other countries, direct consumer-to-consumer transactions are on the rise with 70 million users making use of online classifieds like OLX and Quikr. The industry is set to grow at 20 percent per annum by 2018.



India Internet Contribution to GDP Leads Among Major Developing Countries

India Internet Contribution to GDP stands 6th among major developing and developed countries, with UK being the leading one. The availability of data-enabled devices has grown at a staggering rate and data plans are considerably cheaper than before, but still India lags behind other countries with regards to the penetration of Internet.

One major obstacle is the lack of reliable Internet connectivity in all regions of the country and the non-availability of data-enabled devices. Another roadblock is the lack of consumer awareness in many parts of India, consumers perceive the Internet as unnecessary and are not comfortable with the medium and do not understand its relevance.

Internet Generates Employment

Along with multiple benefits that the Internet economy provides, it is also responsible for generating employment. The 'Internet' sector already employs around 4-5 lakh people and is a key avenue for job creation. It is estimated that the Internet economy will create nearly 15-20 lakh job opportunities by 2018.

Top factors contributing to India's Internet growth

The Internet has greatly changed the way developing countries operate in the last four decades. India has been greatly affected by the developments that have occurred in the past number of years surpassing other developing countries like Brazil and Russia. Recent surveys on how the Indian economy has changed, shows a significant improvement in the Internet landscape.

A recent study by the Cisco Visual Networking Index (VNI) Forecast projects that India is set to have the highest Internet protocol (IP) traffic growth with a 44 per cent compound annual growth rate (CAGR) between 2012 and 2017. A similar report by comScore has several new digital insights for India. According to the report, India ranks as the third largest Internet user base besides US and China, overtaking Japan clocking 73.9 million users.

A McKinsey report in 2012 also predicted that India's pattern of online behaviour is rapidly changing. The Internet's role in communication, social networking, and informing and influencing India's consumers in categories such as apparel, books, financial services and travel can easily be compared to those in developed nations. Some top factors that have helped in India's growing Internet penetration are as follows:

Boom of social media

A report by the Internet and Mobile Association of India (IAMAI) and Indian Market Research Bureau (IMRB) shows that India's number of social media users in urban India was 62 million in December 2012 and it was estimated to reach 66 million by June 2013. The comScore report indicates that almost 86 percent Indians visit a social media site; About 217 minutes is spent on Facebook by an average user. There has also been a 28 percent rise of Face book visitors in the last 12 months. LinkedIn emerges as the number two most popular site on the Internet while Pinterest and Tumblr are the fastest growing networks. Essentially, social networking often serves to be among the first Internet uses of Internet in India, besides the usual reasons like Email, music and gaming.

Changing face of mobility

Rapid economic development has changed the face of mobility in India. With an avalanche of affordable smart phones, improved feature phones made available in India, the youth in India are especially getting tuned in to the mobility trend. A report published by Ernst and Young says combination of 4G and hand-me-down smart devices will transform media consumption in India. The only way to reach rural India without newspapers or electricity is via mobile.

Online shopping is the latest craze

Despite the penetration of online shopping being less than US and Europe, it is growing at an enormous speed in India. There have been lot of new entrants in the E-commerce segment with start-ups cropping up selling a variety apparels, furniture and household items. About 60 percent of web users in India visit online retail sites, time spent on shopping sites still has huge growth potential. Local retailers like Myntra, Flipkart and Jabong among others are doing very well in this segment. E-commerce sites such as olx.com, Amazon.in have targeted the Indian population with an aggressive marketing and advertising strategy to buy and sell goods online. A wide variety of items ranging from computer and electronics sites, and comparison shopping are available on these sites. Another reason for the growth of online shopping is that three-quarters of India's online

population is under 35. Among women, 35-44 are the heaviest users while males in the segment account for 25-34 year old's.

Wide use of entertainment sites and online video

The comScore report suggested that almost 27 percent of Internet users in India visit an entertainment site, with 31.5 percent viewers watching videos on Google sites. The online video audience in India grew at 27 percent in the past year, YouTube continues to be the top video property with more than 55 percent share. International publishers including Facebook, Yahoo and Dailymotion get a majority of the 54 million who watched videos. Local content is distributed mainly through the YouTube platform dominated by Bollywood. T-Series, Sony and UMG are the top three YouTube Partners and StarIndia keeps users glued on longer.

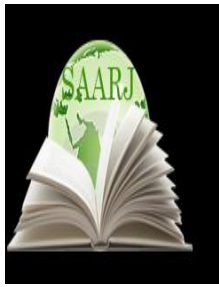
CONCLUSION:

It is a need of an hour for online portals and e-commerce companies to stay connected with their customers giving them timely updates and offer details regularly. In order to improve on customer satisfaction, SMS service seems to be the best platform for e-commerce and online portal companies. Text messages being quick, reliable, user-friendly, cost-effective and secured form for communicating, e-commerce and online portal vendors have found it quite easier to make use of it to run the business.

In the coming years the Internet will fundamentally impact every dimension of human life. This has started to change slowly, as we see the rise in use of IoT things. Internet of Things (IoT) are smart connected devices which make the everyday life of man easy and worthwhile. It works on the Internet connectivity. Human engagement and work load will minimise, thus leading to a greater output and growth. With educating the masses and making them aware regarding the massive potential of Internet, we can hope to see a digital India soon.

REFERENCES:

- http://www.afaqs.com/news/story/43028_India-to-have-550-million-Internet-users-by-2018-Report
- <http://yourstory.com/2015/11/india-Internet-user-base-2015/>
- <http://www.statista.com/topics/2157/Internet-usage-in-india/>
- <http://www.cxotoday.com/story/top-factors-contributing-to-indias-Internet-population-growth/>
- <http://www.iamwire.com/2015/01/rise-Internet-penetration-changing-face-digital-india/108808>
- <http://www.oneindia.com/india/india-to-cross-400-million-Internet-users-by-dec-2015-iamai-report-1929570.html>



SAARJ Journal on Banking & Insurance Research (SJBIR)

(Double Blind Refereed & Reviewed International Journal)



DOI MUMBER: **10.5958/2319-1422.2019.00009.2**

BANK CREDITS FOR INNOVATION PROJECTS: JUSTIFICATION OF SIGNIFICANCE

Jamshid Shakirov*

*Senior Researcher
Tashkent financial Institute (TFI),
UZBEKISTAN
Email id: a.ilyos@mail.ru

ABSTRACT

This article studies conditions of bank crediting for innovation projects. There is considered the essence of bank lending, standard lending principles and their non-compliance with the development of innovative projects. We have carried out an empirical analysis of the impact of bank lending on the increase of innovation in GDP. The obtained result shows the high impact of loans on the innovative development of the country in a year and thereafter. Given some recommendations for successful interaction of banks with innovative project initiators.

KEYWORDS: *Bank Loan, Innovation, Innovative Project, Risk, Economic Growth.*

1. INTRODUCTION

Dynamics and tendency of the economic policy of Uzbekistan over the past 3 years reflect a process of transition to the innovative development model. This way of development is aimed at ensuring a stable economic growth, strengthening scientific potential, and raising competitiveness. Recently adopted Strategy for the Innovative Development of Uzbekistan for 2018-21 greatly contributes to the achievement of results. In the Strategy, the main problem and challenge for the government is to expand the sources and raise volume of financing for innovations.

In Uzbekistan commercial banks represent the main, and in my opinion, the only financial institution that finances innovations. Moreover, the state budget not increasing the amount of support for innovative projects. However, it raises the government support for basic and applied research only. World experience also demonstrates an increase in the banking investment in innovations (Wu and Wang, 2005).

The issue of bank lending of innovations has been comprehensively studied and considered by many economists. However, the peculiarities of Uzbekistan with the account of its existing financial infrastructure have not been studied yet. In this regard, impact of banking lending on the expansion of innovative enterprises is crucially required. Proceeding from this fact, our article is devoted to studying the issue of banking lending for innovative projects. To achieve this goal, we have revealed the essence of banking lending. It should be noted that bank loans are rarely extended for innovative projects because of high risks. Therefore, it is necessary to develop new approaches to lending process. Thus this article is devoted to the analysis of impact of bank loans on the innovative development of Uzbekistan. Based on research results, relevant policy recommendations have been developed. Object of the research is the process of implementing innovative projects. Subject of the research is the impact of bank loans on successful implementation of innovative projects. Practical significance of the research is to improve the lending policy of banks in relation to innovative enterprises of Uzbekistan.

2. LITERATURE REVIEW

2.1. Innovative development of the economy

Enhancing the competitiveness of any economy is implemented through the active development of innovation (Savolainen, 1999). Innovation is becoming a key driver of the economic growth (Bullinger et.al., 2004). Influence of technological progress is gradually increasing. At the micro level, innovation acts as the basis for improving production efficiency, quality and competitiveness, cost reduction. At the macro level, there is a transition from a resource type of economic development to an innovative one. A new innovative model of the economic development is being formulated. ICT, technology transfer, innovation and intellectual property market are dominating in this model.

2.2. Participation of banks in the innovative development

According to the views of economists, efficiency of innovation depends on the use of financial resources. Financing for researches is carried out at the expense of budget funds while financing of development is implemented at the expense of venture investors. Typically banks begin to offer their loans when the novelty or innovation have been already created and the mass production of innovative products is about to be launched. However, banks are very cautious with regard to the allocation of funds due to high risks and charge high interest and sufficient collateral (Saunders et.al, 2006).

It is possible to make a conclusion that banks play main role in enhancing investment activity. Commercial banks mobilize savings, then formulate and distribute investment capital. Price of banking resources is developed on the terms of free competitive advantages and it does not fit the requirements of innovative enterprises (Korosteleva and Mickiewicz, 2011).

Currently commercial banks are considered to be main channel for supplying financial capital to the economy. Bank lending represents process of getting a loan with the obligation to return the amount received and the interest at the established rate over a certain period of time. According to the definition of Krolivetskaya and Tykhomirova (2007), the term “loan” implies “a system of economic relations arising in the process of providing funds by lenders to borrowers for a temporary use on terms of repayment, urgency and, as a rule, with interest payments”.

The value of bank loans in various countries is not the same, however, banks are main financial institutions for small high-tech enterprises abroad. In EU member states, 79.0% of small innovative enterprises have made applications to the banks for getting credit (SME access Report, 2015). In the Russian Federation about half of private innovative enterprises (48.4%) did not use bank loans in their business and did not need this (RPORC Report, 2015). Only 27.6% of such Russian entrepreneurs have used bank loans to finance their business, meanwhile 22.4% of innovators tried to get bank loans, but either the conditions have turned out to be unprofitable or the bank has refused (RPORC Report, 2015). A detailed study of the forms and organizational and legal issues of lending has been considered in the scientific research of Saypiddinov (2009).

Although the development rates of innovative entrepreneurship lending in all countries has a positive trend, at the same time, Popadiuk and Gorfinkel (2013) have specified that they involve significant risks for banks. Main of these risks are the following:

- low transparency;
- unstable financial situation;
- lack of adequate and liquid collateral;
- lack of necessary state support;
- Imperfection of legislation, etc.

In addition, Duda (2013) has mentioned the following reasons preventing the development of innovative banking lending in Uzbekistan:

- high inflation;
- high risks;
- low capital turnover;
- at the beginning is difficult to determine the required amount of capital;
- high interest rates;
- low liquid security;
- long payback period for innovative projects.

2.3. Issue of the research

Regarding above-mentioned considerations, it is possible to make a preliminary conclusion that in Uzbekistan innovative projects are mainly financed by budgetary funds and foreign capital. The share of bank loans is very low. However, the subsequent impacts of these sources on economic growth differ. Our hypothesis is that it is banking credit that provides a greater final effect in raising the share of innovative products in GDP. Expected result may not immediately become

obvious, so the time lag must be chosen as -1 or -2. The next step will be analysis of the impact of bank lending on the volume of manufactured innovative products in GDP.

3. METHODOLOGY

In this research we have applied a correlation-regression analysis to assess the efficiency of bank loans on innovative entrepreneurship development. As a result, share of innovation products and services in GDP produced by small businesses has been accepted as an efficient indicator. Volume of credits extended by commercial banks has been accepted as a variable indicator. In the research process correlation coefficient has been measured using correlation analysis. That is, the ratio of correlation coefficient of two indicators (x and y) has been determined. We used OLS method when developing empirical models.

To verify the validity of correlation and regression analysis, we used Z criterion of Fisher, T-student criterion, and Fisher criterion. In addition, Akaike info criteria, Schwartz criterion, Hannan-Quinn criteria and Durbin-Watson statistical criteria have been verified by the statistical standards.

Statistical data used for the research are of a secondary nature and based on the data available from the State Statistics Committee of Uzbekistan and Central Bank of Uzbekistan. Simple statistical interpretation, econometric analysis and other experimental models have been used in our research. The availability of access to the research facilities for the use of computer rooms, information and resource centre, Internet access, electronic and print local and foreign scientific journals has been provided by the Tashkent Financial Institute.

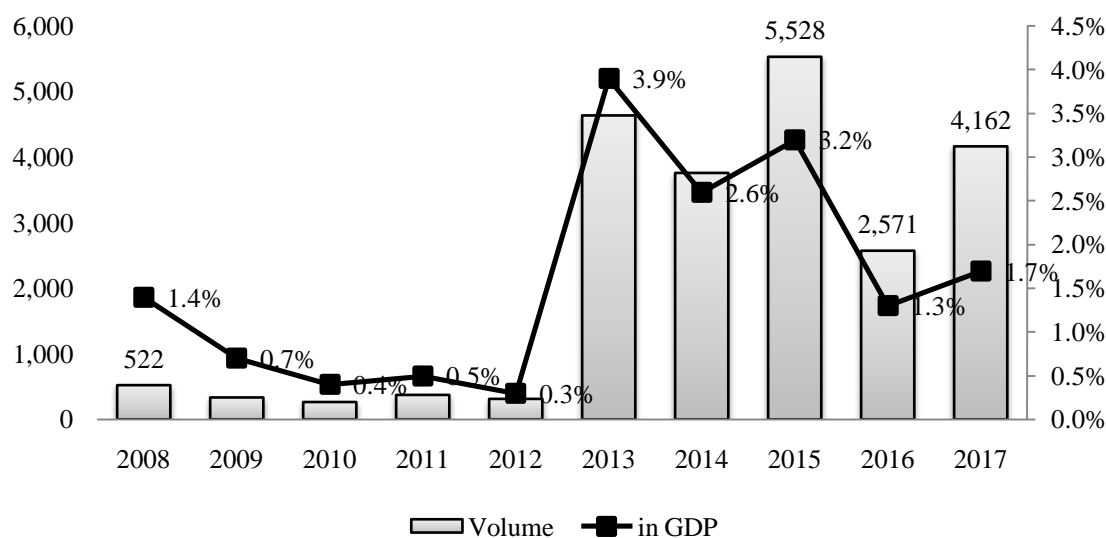
4. RESULTS OF THE ANALYSIS

4.1. Macroeconomic analysis

Currently Uzbekistan is one of the five rapidly-growing countries in the world. With the aim of further developing production capacities in 2015-2019 the total cost of modernization and technical renewal of production, 846 investment projects for the total amount constituting 40.8 billion USD are being implemented. Among them 711 new investment projects totaling 19.6 billion USD will be launched in 2015-2019 and investors and funding sources have already been determined for them. 135 priority projects for the amount of 21.2 billion USD are being currently implemented due to attracting foreign investments and loans. Implementation of the Programme will raise the share of the industry in GDP from 24% to 27% by 2021.

In 2017, production and sales of innovations in Uzbekistan increased by 173.5% compared to 2016 and 14-fold in comparison with 2008. Negative dynamics is observed only in Andijan region and it is associated with a decrease in the production and sales of motor vehicles in the Asaka plant. The highest positive growth rates are observed in Kashkadarya and Bukhara regions. Growth rates in other industries demonstrate a relatively low indicator.

In terms of GDP, in 2008 innovation costs accounted for 1.4% and in 2013 this indicator increased by 3.9% in 2013, but has declined by 1.7% in 2017. Expenses on innovation in 2017 increased by 161.9% compared to 2016. This indicator has increased 8-fold comparing to 2008 and constituted 1.7% in GDP.

Figure1. Expenses on innovations in GDP

Source: Official data of the State Statistics Committee of Uzbekistan.

In 2017, 71.0% of innovation expenses have been financed by own funds of enterprises, 19.2% - by means of foreign capital, 2.1% - by commercial banks, 7.7% due to other funds (state budget, extrabudgetary funds and state-guaranteed loans).

TABLE 1. EXPENSES ON INNOVATIONS BY FINANCING SOURCES, BILLION UZS

SOURCES	2010	2011	2012	2013	2014	2015	2016	2017
EQUITY CAPITAL	184.3	263.2	213.4	2501.5	1381.5	1251.8	1180.0	2956.0
FOREIGN CAPITAL	48.3	24.9	39.9	1228.7	32.3	156.6	314.9	799.1
BANK LOANS	30.0	63.7	26.8	533.5	262.5	280.1	157.3	88.4
OTHER FUNDS	1.8	20.9	31.7	370.6	2081.0	3839.7	919.1	318.8
TOTAL:	264.4	372.7	311.8	4634.3	3757.3	5528.2	2571.3	4162.3

Source: Official data of the State Statistics Committee of Uzbekistan.

A major share of total spending on the types of innovations is directed to technological (product and process) innovations. 20% of product innovations and 77.6% for process innovations (2.4% for marketing innovations and 0.1% for organizational innovations) out of the total amount of expenditures have been made in 2017.

By 2017, 975 enterprises introduced 1946 technological innovations. It should be noted that 42 of these innovations have been developed in collaboration with research institutes, and 20 - in collaboration with higher education institutions. The share of small enterprises in the latest technological innovations constitutes 61.6% (1198).

Furthermore, along with other developing countries in the transition economy, in Uzbekistan the term "innovation" also implies purchase (import) of new equipment. Technological and innovative system of Uzbekistan is not currently advanced, so we need introduction and adoption of new

knowledge and technologies from abroad. This means that innovation activity in Uzbekistan is primarily based on the efficient use of equipment imported from abroad, and in most cases, development of science-based activities. Accordingly, attracting foreign investments and mastering foreign technologies should become one of the main priorities of the public innovation policy. In this regard, in our opinion, it is more efficient to implement in practice current innovations for the economy of Uzbekistan, but not to develop the innovations which do not comply with the development level of Uzbekistan.

4.2. Results of econometric analysis

We conducted a correlation-regression analysis to assess the impact of the bank credit on the increase in the volume of manufacturing innovative products in the economy.

An indicator of the share of manufactured innovative products in GDP has been taken as a dependent variable of innovation development. It is supposed, that “impact of the source of bank credits on the growth of the share of innovative products in total volume of goods and service is big”.

Data selected for the analysis represent time-series data by the quarters of the period of 2010-2016. Statistical data used in the analysis are official statistical data of the State Statistics Committee of Uzbekistan and have been collected for analysis on free of charge basis. With the aim of ensuring equality of variable units which are analyzed, as well as performing unit-root test with the help of Augmented Dickey-Fuller, to achieve a low p-value, lending volume (cred) is represented in the form of the percentage, or natural log. Adequate level of the correlation between variables selected has been determined. The analysis has been carried out with the help of Eviews 8.1. The Table below demonstrates the results of analysis.

Results of the regression analysis

Observation period	Quarters of the period over 2010-2016
Number of observations	32
log(cred(-1))	0.011 (Prob.≈0.001)
C	-0,038 (Prob.≈0.003)
R ²	0.888
Adjusted R ²	0.870
Standard error	0.004
F-stat.	47.902
Probable F-stat.	0.000
Akaike info criterion	-7.571
Schwarz criterion	-7.551
Hannah-Quinn criterion	-7.705
DW statistics	2.045

Typically, in the variable model determination coefficient is accepted as the value between 0 and 1. The coefficient is close to 1, the more accurate the correlation is. In our case the value of 0.888 (88.8%) and 0.870 (87.0%) illustrate the adequate correlation between economic indicators in this model. If probability value of impact factors is less than 10% only in case of taking into account

indicators, it proves insignificance of these indicators and the fact that they are very close to 0, demonstrate their adequacy.

Average annual 1% growth of bank credits extended to the innovations leads to the 1.1% increase of the volume of innovative manufactured products in GDP. The equation calculated by OLS method can be illustrated as it follows: $\text{inno_GDP} = 0.011 \log(\text{cred}(-1)) - 0.038$

The accuracy of results of the regression model has been verified by Jarque-Bera test. Here we have identified that indicators of model have general standardized values. Thus residual square of regression errors has been accepted as the least indicator, and standard error has been selected close to 0. In addition, probability value of F-statistics has been selected as equal to 0, three Akaike info criteria, Schwarz criterion and Hannah-Quinn criteria have been selected as the model with the least value. Statistical criterion of Durbin-Watson (Durbin-Watson stat) has appeared in the ideal condition when performing analysis of the first order elements with the help of autocorrelation test.

5. CONCLUSIONS

As a result of the research it should be noted that with the application of econometric methods it has become possible to determine that the impact of bank credits on the increase in the volume of manufactured innovative products is huge enough. Meanwhile, an innovative project implemented through a bank credit starts to show its stronger effect the next year and in future. In addition, it is proposed to implement the following system recommendations for improving the mechanism of banking lending:

1. Bank specialists should learn to select the appropriate stage of the development of innovative projects for lending. Banks typically prefer the expansion stage.
2. Banks must learn to lend part of an innovative project (but not less than 50% of the project cost) with the condition to find external private investors to co-finance the rest of the project cost. This is the main condition for risk diversification.
3. Banks need to create a manual on the innovative lending risk management.
4. It is required to develop a particular approach to the interest rate on innovative projects. In this regard it is necessary to take into account a number of factors. The use of using floating interest rates is also possible.
5. For innovative projects it is necessary to offer flexible ways and schemes for repaying the principal amount of debt.
6. Availability of specific restrictions on lending contracts, such as insurance against disasters.
7. Moreover, it is important to develop a collateral mechanism. In this regard it is recommended to offer collateral-free lending technologies. Within the framework of this aspect, the activities of the Guarantee Fund for the Development of Small Business in Uzbekistan are expanding here.

In addition, the most important aspect for banks to learn how to control the innovator before the loan is fully repaid; while at the same time determine the risks in maximum during the implementation of the innovation project.

REFERENCE

1. Bullinger, H. J., Auernhammer, K., & Gomeringer*, A. (2004). Managing innovation networks in the knowledge-driven economy. *International Journal of Production Research*, 42(17)
2. Duda, J. (2013). The role of bank credits in investment financing of the small and medium-sized enterprise sector in Poland. *Managerial Economics*, 13
3. Korosteleva, J., Mickiewicz, T. (2011). Start-up financing in the age of globalization. *Emerging Markets Finance and Trade*, 47(3)
4. Krolivetskaya, L.P., Tykhomirova N.B. (2007). Banking: credit activities of commercial banks. KNORUS, Moscow. 2009 (in Russian)
5. Popadyuk T.G. Gorfinkel V.I. *Innovational Entrepreneurship*. Textbook. U-write Publishing. 2013
6. Russian public opinion research centre Report on Small and medium enterprises, 2015.
7. Saunders, A., Cornett, M. M., & McGraw, P. A. (2006). *Financial institutions management: A risk management approach* (Vol. 8). New York: McGraw-Hill/Irwin.
8. Savolainen, T. I. (1999). Cycles of continuous improvement: realizing competitive advantages through quality. *International Journal of Operations & Production Management*, 19(11)
9. Saypiddinov I.M. (2009). The main ways to improve lending by commercial banks to small businesses. Tashkent, 2009 (in Russian)
10. SME access to Finance / European Commission. Report. 2015
11. Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & management*, 42(5)

Editorial Board

Dr. Priti Pandey, Editor in Chief

Associate Professor of Finance
D.S. Institute of Management Studies (DSIMS),
Malad West, Mumbai, Maharashtra, INDIA.

Dr. Sisira Kanti Mishra

Professor of Finance
NIST Business School, National Institute of
Science & Technology (NIST), Palur Hills,
Berhampur, Dist: Ganjam, Orissa, INDIA.

Obidjon Khamidov

Professor
Tashkent State University of Economics,
UZBEKISTAN

Dr. Antonia Mercedes Garcia Cabrera

Professor
Business Administration, University of Las
Palmas de Gran Canaria, SPAIN.

Dr. Valentina Vasile

Professor
Institute of National Economy-
Romanian Academy, ROMANIA.

Dr. Liliana Faria

Professor
Vocational Psychology, ISLA Campus Lisboa -
Laureate International Universities, PORTUGAL

S.Anandasayanan

Senior Lecturer
Department of Financial Management
Faculty of Management Studies & Commerce
University of Jaffna, SRI LANKA

Dr. Alan D. Smith

Faculty
Management, Robert Morris University, USA.

Dr. Kapil Khanal

Associate Professor
Department of Management, Shankar Dev
Campus, Ram Shah Path T.U. Kirtipur, NEPAL.

Dr. Sunil Kumar

Associate Professor
Faculty of Economics, South Asian University
(SAU), New Delhi, INDIA

Dr. Sunil Kumar

Assistant Professor
Punjab School of Economics, Guru Nanak Dev
University, Amritsar – 143005, Punjab, INDIA

Dr. Dalbir Singh

Assistant professor
Haryana School of Business, G.J.U.S & T, Hisar,
Haryana, INDIA.

Dr. Karun Kant Uppal

Assistant professor,
P G Deptt. of Commerce & Management,
Kamla Lohtia S D College, Ludhiana, INDIA

Mrs S. Dinesh Kumar

Assistant Lecturer
Faculty of Mgt. Studies and Comm.
University of Jaffna, SRI LANKA.

Dr. Ebele P. Ifionu

Faculty
Department of Finance and Banking,
University of Port Harcourt, NIGERIA.

Categories

- Business Management
- Banking
- Insurance
- Finance

Review Process

Each research paper/article submitted to the journal is subject to the following reviewing process:

1. Each research paper/article will be initially evaluated by the editor to check the quality of the research article for the journal. The editor may make use of iThenticate/Viper software to examine the originality of research articles received.
2. The articles passed through screening at this level will be forwarded to two referees for blind peer review.
3. At this stage, two referees will carefully review the research article, each of whom will make a recommendation to publish the article in its present form/modify/reject.
4. The review process may take one/two months.
5. In case of acceptance of the article, journal reserves the right of making amendments in the final draft of the research paper to suit the journal's standard and requirement.

Published by

South Asian Academic Research Journals

A Publication of CDL College of Education, Jagadhri (Haryana)
(Affiliated to Kurukshetra University, Kurukshetra, India)

Our other publications :

Academica - An International Multidisciplinary Research Journal

ISSN (online) : 2249-7137

South Asian Journal of Marketing & Management Research (SAJMMR)

ISSN (online) : 2249-877X