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A STUDY ON OPERATIONAL RISK MANAGEMENT IN PUNJAB NATIONAL BANK

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Abstract: This paper is explores the measurement and management of risks in commercial banks. To find out the desired result according to study being a sample Punjab National Bank is selected. Different measurement tools are available to manage the different type of risks in banks , hence operational risk measurement and management have been analyzed in this paper.

Commercial Banks: Commercial bank is an institution that accepts deposit, makes business loans and offer related services to various like accepting deposits and lending loans and advances to general customers and business man. These institutions run to make profit. They cater to the financial requirements of industries and various sectors like agriculture, rural development, etc. it is a profit making institution owned by government or private of both.

Commercial bank includes public sector, private sector, foreign banks and regional rural banks: Public sector banks: It includes SBI, seven (7) associate banks and nineteen (19) nationalized banks. Altogether there are 27 public sector banks. The public sector accounts for 90 percent of total banking business in India and State Bank of India is the largest commercial bank in terms of volume of all commercial banks. **Private sector banks:** Private sector banks are those whose equity is held by private shareholders. For example, ICICI, HDFC etc. Private sector bank plays a major role in the development of Indian banking industry. **Foreign Banks:** Foreign banks are those banks, which have their head offices abroad.CITI bank, HSBC, Standard Chartered etc. are the examples of foreign bank in India. **Regional Rural Bank (RRB):** These are state sponsored regional rural oriented banks. They provide credit for agricultural and rural development. The main objective of RRB is to develop rural economy. Their borrowers include small and marginal farmers, agricultural laborers, artisans etc. NABARD holds the apex position in the agricultural and rural development. **Co-operative Bank:** Co-operative bank was set up by passing a co-operative act in 1904. They are organized

and managed on the principal of co-operation and mutual help. The main objective of co-operative bank is to provide rural credit. The cooperative banks in India play an important role even today in rural co-operative financing. **Scheduled and Non-Scheduled banks:** A bank is said to be a scheduled bank when it has a paid up capital and reserves as per the prescription of RBI and included in the second schedule of RBI Act 1934. Non-scheduled bank are those commercial banks, which are not included in the second schedule of RBI Act 1934. **Development banks and other financial institutions:** A development bank is a financial institution, which provides a long term funds to the industries for development purpose. This organization includes banks like IDBI, ICICI, and IFCI etc. State level institutions like SFC's SIDC's etc. It also includes investment institutions like UTI, LIC.

PROFILE OF PUNJAB NATIONAL BANK: Punjab National Bank Ltd. is an Indian financial services company based in New Delhi, India. Founded in 1894, the bank has over 6,300 branches and over 7,900 ATMs across 764 cities. It serves over 80 million customers. Punjab National Bank Ltd. is one of the Big Four banks of India, along with State Bank of India, ICICI Bank and Bank of Baroda. It is the third largest bank in India in terms of asset size (billion by the end of FY 2012-13). The bank has been ranked 248th biggest bank in the world by the Bankers' Almanac. PNB has a banking subsidiary in the UK (PNB International Bank, with seven branches in the UK), as well as branches in Hong Kong, Kowloon, Dubai and Kabul. It has representative offices in Almay (Kazakhstan), Dubai, Shanghai (China), Oslo (Norway) and Sydney (Australia). In Bhutan it owns 51% of Druk PNB Bank, which has five branches. PNB owns 20% of Everest Bank Limited, which has 50 branches in Nepal. Lastly, PNB owns 84% of JSC (SB) PNB Bank in Kazakhstan, which has four branches

SCHEMES / PRODUCTS / SERVICES

Punjab National Bank is extensively catering to banking needs of Nonresident Indians, Importers & Exporters particularly relating to foreign exchange business including Imports & Exports of Goods & Services as also Remittances etc. Such like Foreign Currency Nonresident, Deposit A/c Scheme (FD), Nonresident, External Deposit A/c Scheme (SB/CA/FD), Nonresident, Ordinary Deposit A/c Scheme (SB/CA/FD/RD), Foreign Inward Remittances – Rupee Drawing Arrangements / Speed Remittances with, Exchange Houses, Money Transfer Schemes, PNBNRI, REMIT Scheme, Exchange of Foreign Currency Travelers Cheques/Notes, World Travel Card, Buyers' / Suppliers' Credit against Imports into India, Letter of Guarantee (issued on behalf of foreign bank), Precious Metal Business (on consignment basis), Gold (Metal) Loan Scheme for Domestic Jewellery Manufacturers. ECGC – Bank assurance Selling of policies to exporters

SAVINGS FUND ACCOUNT

- PNB Premium Saving Account
- PNB Prudent Sweep
- Total Freedom Salary Account
- PNB Vidyarthi SF Account
- PNB Mitra SF Account
- PNB Rakshak Scheme
- PNB Shikshak Sweep Scheme
- PNB Shikshak Overdraft Scheme

FIXED DEPOSIT SCHEMES

- AUTORENEWAL
- FD Scheme for Road Accident Victims
- Recurring Deposit Scheme
- PNB 1111 days
- PNB Anupam Term Deposit Scheme
- PNB Bal Vikas
- PNB Combo Deposit Scheme
- PNB Dugna Deposit Scheme
- PNB Lakhpati Deposit SchemeA
- PNB Lakhpati Deposit Scheme(Recurring and Fixed Deposit)B
- PNB Multi Benefit Term Deposit Scheme
- PNB Special Term Deposit Scheme
- PNB Sugam Term Deposit Scheme
- PNB Ordinary Term Deposit Scheme
- PNB Varshik Aay Yojana (Vay) Deposit Scheme
- PNB Swecha Jama Yojna/Flexi RD
- PNB Tax Saver Fixed Deposit Scheme
- Prospective Sr. Citizen Scheme
- Loan against term deposits

RISKS IN BANKS: Risk is defined as uncertain resulting in adverse outcome, adverse in relation to planned objective or expectation. It is very difficult o find a risk free investment. An important input to risk management is risk assessment. Many public bodies such as advisory committees concerned with risk management. Risks are classified into three categories like, Market risk, Credit Risk and Operational risk. Risk analysis and allocation is central to the design of any project finance, risk management is of paramount concern.

MARKET RISK: Market risk is the risk of adverse deviation of the mark to market value of the trading portfolio, due to market movement, during the period required to liquidate the transactions.

CREDIT RISK: Credit risk is defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms, or in other words it is defined as the risk that a firm's customer and the parties to which it has lent money will fail to make promised payments is known as credit risk.

OPERTIONAL RISK: Operational risk is one area of risk that is faced by all organizations. More complex the organization more exposed it would be operational risk. This risk arises due to deviation from normal and planned functioning of the system procedures, technology and human failure of omission and commission. Result of deviation from normal functioning is reflected in the revenue of the organization, either by the way of additional expenses or by way of loss of opportunity.

LITERATURE REVIEW

Jensen and Meckling (1976) in the light of the agency theory suggested that an agent's risk preference changes with the variability of an owner's vigilance or monitoring status. Alternatively, agents' superb performance diminishes owners' levels of monitoring whilst demonstrating risk-seeking characteristics and vice-versa. **Bowman (1980, 1982)** discovered an inverse relationship between risk and return. It was suggested that managers demonstrate risk-seeking characteristics in the case of gain and risk aversion regarding loss relative to a reference point. **Tversky and Kahneman (1982**) argued that managers' decentralized risk choices may be different from that of owners, who exhibit a holistic view, and the sum of silo risk choices considerably differs from that of the consolidated portfolio. The strategists' conclusion of managerial risk taking initiatives is also recognized by finance researchers. For example, Stulz (1984, 1990) identified that firms intend to maximize hedging until the variance of the investment portfolio (i.e., risk) is minimized; whereas, managers trading in hedging contracts individually, face significant costs (Froot et al., 1993). If we believe that operational risk is a subset of strategic risk then we need to analyze the root of strategic risk in order to derive the foundation of operational risk. **Wiseman and Catanach (1997)** discussed several organizational and behavioral theories, such as agency theory and prospect theory, which influence managerial risk-taking attitudes. They found 40 that, within the variety of relations among risk choices, managers exhibit simultaneous low and high-risk preferences.

RESEARCH METHODOLOGY:

Objectives of the Study

1. To study different methods available for operational risk management and being used by banks in India.

2. To gain insights into the Operational risk management activities and approaches applied by Punjab National Bank.

3. To understand the norms of BCBS (Basel committee in banking supervision) for Operational risk management in banks.

4. To study the guidelines given by RBI for effective Operational risk management in banks.

Data Collection Sources: The descriptive study will be based on secondary data to be obtained from various websites and books. This study is exclusively based on secondary data which has been collected from the various authentic records and publications of RBI and website of individual banks and annual report of Punjab National bank and website of the bank. The sources include online publications, books and journals.

ANALYSIS & DISCUSSION (APPROACHES OF OPERATIONAL RISK MANAGEMENT)

Operational Risk:

Management of credit and market risks has traditionally been at the centre of bank risk management. Operational risk must be distinguished from credit risk and market risk. For one thing, there is no equivalent to the concept of risk exposure. That is to say, Operational Risk does not correspond in a simple fashion to any financial indicator. Secondly, the distribution of Operational Risk is more fat-tailed than that of credit risk. In addition, Operational Risk is endogenous relative to credit and market risk. In other words, the scope for reduction of risk is greater in the case of Operational Risk. Operational Risk is founded on the premise that a bank, independent of outside factors, will fail to meet one or more operational targets in a given year. **In the words of Mr. Subbarao, Former Governor, RBI**, "Risk management is a big challenge for banks. Based on the lessons we learnt on the crisis, we moved from Basel-I to Basel-II and then to Basel-III. We believe, even though our banking system is safe and sound, we must adopt advanced risk management practices," "Just because we were protected from this crisis, it does not mean we are protected from every crisis in the future. As a financial system, we are vulnerable to pressures. So, we must adopt and implement new norms. We are going to issue the notification shortly implementing Basel-III norms from April," The Basel III Accord has stressed on the capital Adequacy with adoption of Advanced Management Approach, to increase the bank liquidity and bank leverage.

In this context,

1. The study of Basel-III and its implementation has immense scope for further research.

2. The Operational Risk Management techniques in housing finance adopted by the Basel-III Accord

The Basel Committee has allowed each relevant national supervisor to define gross income. RBI defines gross income as follows,

Gross income = Net profit (+) Provisions & Contingencies (+) operating expenses (Schedule 16) (-) profit on sale of HTM investments (-)income from insurance (-) extraordinary / irregular item of income (+) loss on sale of HTM investments . LGD: Loss Given Default is the magnitude of likely loss on the exposure: this is termed the Loss Given Default (LGD), and is expressed as a percentage of the exposure.EAD: If an asset suffers from a lower valuation or a loan defaults, the Exposure at Default figure is how much the firm will lose as a result of the default. PD: Probability of Default is the likelihood that a loan will not be replayed and fall into default. **Approaches of Operational Risk:** There are three approaches for calculating operational risk capital requirements, in rising order of sophistication and sensitivity to risk: (I) the Basic Indicator Approach (BIA) (ii) the Standardized Approach (TSA) (iii) Advanced Measurement Approach. **The Basic Indicator Approach:** Banking corporations using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted α) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. The charges may be expressed as follows: $KBIA= [\sum (GI1\ldots n\times\alpha)] /n$ Where: KBIA = capital charge under the Basic Indicator Approach; GI = annual gross income, where positive, over the previous three years; N = number of the previous three years for which gross income is positive; $\alpha = 15\%$, as determined by the Basel Committee, connecting between the requisite level of capital and Indicator GI.

The Standardized Approach: In the Standardized Approach, banking corporations' activities are divided into eight business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage. Within each business line, gross income is an indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted β) assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational-risk loss experience for a given business line and the aggregate level of gross income for that business line. It should be noted that in the Standardized Approach gross income is measured for each business line, not the whole institution, i.e., in corporate finance, the indicator is the gross income generated in the corporate-

finance business line. The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. In any given year, negative capital charges (resulting from negative gross income) in any business line may offset positive capital charges in other business lines without limit. However, where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year will be zero. The total capital charge may be expressed as: KTSA ={ ∑years 1-3 max[Σ (GI1-8×β1-8), 0]}/3 Where: KTSA = the capital charge under the Standardized Approach GI1-8 = annual gross income in a given year, as defined above in the Basic Indicator Approach, for each of the eight business lines β1-8 = a fixed percentage, set by the Committee, relating the level of required capital to the level of the gross income for each of the eight business lines. The values of the betas are detailed below.

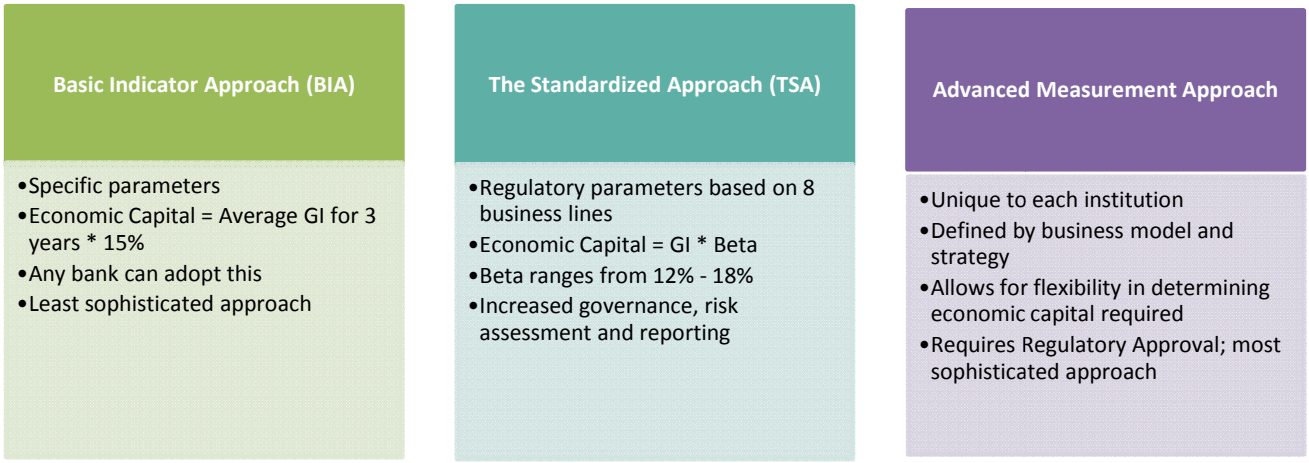
Business Lines	Beta Factors
Corporate finance (β1)	18%
Trading and sales (β2)	18%
Retail banking (β3)	12%
Commercial banking (β4)	15%
Payment and settlement (β5)	18%
Agency services (β6)	15%
Asset management (β7)	12%
Retail brokerage (β8)	12%

Average gross income in the past three years shall be calculated on the basis of audited/reviewed financial statements for the previous 12 quarters. When audited/reviewed financial statements are unavailable, banking corporations may use estimates per prior approval of the Supervisor. **Advanced Measurement Approach:** (AMA) is one of three possible operational risk methods that can be used under Basel II by a bank or other financial institution. The other two are the Basic Indicator Approach and the Standardized Approach. The methods (or approaches) increase in sophistication and risk sensitivity with AMA being the most advanced of the three. Under AMA the banks are allowed to develop their own empirical model to quantify required capital for operational risk. Banks can use this approach only subject to approval from their local

regulators. Once a bank has been approved to adopt AMA, it cannot revert to a simpler approach without supervisory approval. Also, according to section 664 of original Basel Accord, in order to qualify for use of the AMA a bank must satisfy its supervisor that, at a minimum:

- Its board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
- It has an operational risk management system that is conceptually sound and is implemented with integrity; and

APPROACHES OF OPERATIONAL RISK



OPERATIONAL RISK MANAGEMENT ACTIVITIES OF THE PUNJAB NATIONAL BANK

The regulators of financial companies and banks are demanding a far greater level of insight and awareness by directors about the risks they manage, and the effectiveness of the controls they have in place to reduce or mitigate these risks. Further, compliance regulations, like Basel II and SOX, mandate a focus on operational risks, forcing financial organizations to identify, measure, evaluate, control and manage this ubiquitous risk. This has led to an increased emphasis on the importance of having a sound operational risk management (ORM) practice in place, especially when dealing with internal capital assessment and allocation process. This makes ORM one of the most complex and fastest growing risk disciplines in financial institutions. Punjab National Bank Ltd. is one of the Big Four banks of India, along with State Bank of India, ICICI Bank and Bank of Baroda. It is the third largest bank in India in terms of asset size (billion by the

end of FY 2012-13). The bank has been ranked 248th biggest bank in the world by the Bankers' Almanac

- Internal Fraud - misappropriation of assets, tax evasion, intentional mismarking of positions, bribery
- External Fraud - theft of information, hacking damage, third-party theft and forgery Employment Practices and Workplace Safety - discrimination, workers compensation, employee health and safety

Table 1
FRAUDS OF PUNJAB NATIONAL BANK

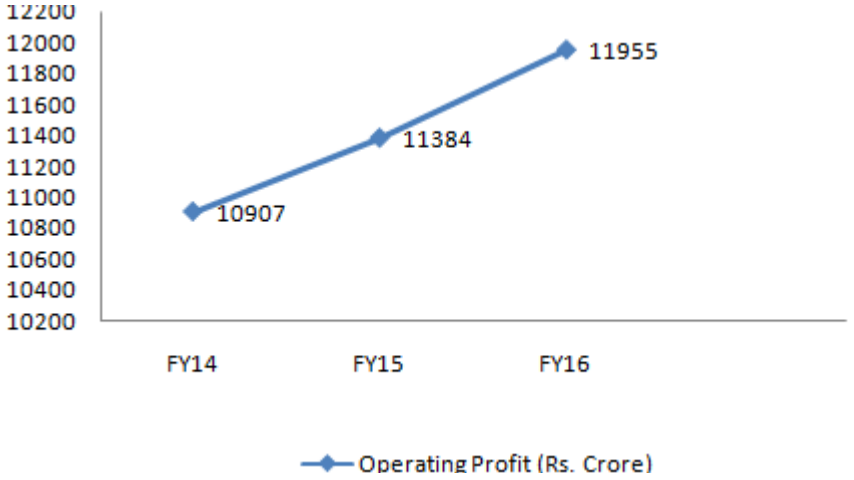
YEAR	NO. OF FRAUDS	AMT. INVOLVENENT (RS cr.)
2014	27	284.72
2015	20	1251.45
2016	8	82.16

Source: - CBI Press Release

A) OPERATIONAL EFFICIENCY

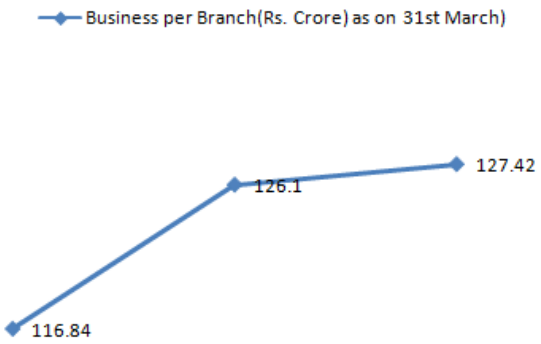
Operational efficiency is the capability of a Bank to deliver products or services to its customers in the most cost-effective manner possible while still ensuring the high quality of its products, service and support. Operational efficiency is often achieved by streamlining a company's core processes in order to more effectively respond to continually changing market forces in a cost-effective manner. In order to attain operational efficiency a company needs to minimize redundancy and waste while leveraging the resources that contribute most to its success and utilizing the best of its workforce, technology and business processes. The reduced internal costs that result from operational efficiency enable a company to achieve higher profit margins or be more successful in highly competitive markets.

1) OPERATING PROFIT (Rs. Core)



The operating profit is increasing from 2014 to 2015 and 2015 to 2016. Operating profit is the profit earned from a firm's normal core business operations. This value does not include any profit earned from the firm's investments (such as earnings from firms in which the company has partial interest) and the effects of interest and taxes. In 2014 the operating profit is10907 and in 2014 is 11384 there is increase of Rs 477 cr. Which shows operational efficiency and in 2015 the operating profit is11384 and in 2015 is 11955 there is increase of Rs 571 cr. This also shows operational efficiency

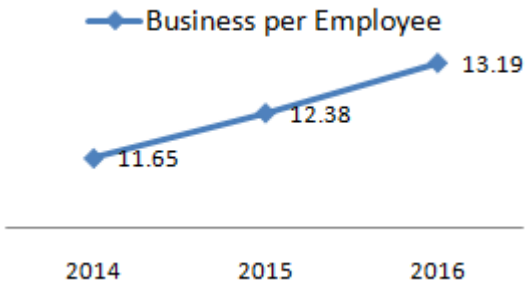
2) BUSINESS PER BRANCH (Rs. Core) as on 31st March



Business of a bank means loan and advances given to the public and sales of services. In 2014 the business per branch of PNB is 116.84 and in 2014 the business per branch is 126.10 there is

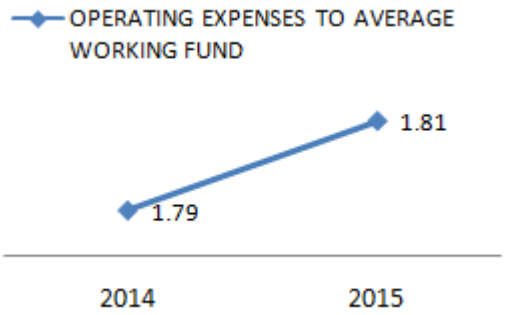
increase in the business of branch from2013 to2015 by 9.26 and in 2016 the business per branch is 127.42 there is also increase in 2016 from 2015 by 1.32

3) Business per Employee (Rs. Core) as on 31st March

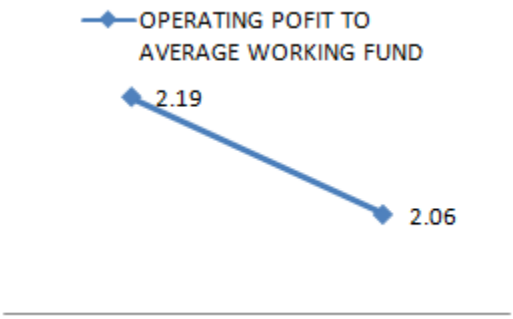


Business per employee Business per employee = Total Business/ Total Employees. In 2014 the business per branch of PNB is 11.65 and in 2015 the business per employee is 12.38 there is increase in the business per employee from 2014 to 2015 by 0.73 and in 2016 the business per employee is 13.19 there is also increase in 2016 from 2014 by 0.81

4) OPERATING EXPENSES TO AVERAGE WORKING FUND (Ratio)



Operating expense is a category of expenditure that a business incurs as a result of performing its normal business operations and average working funds is total interest income minus total interest expenses. In 2014 the operating expenses to average fund is 1.79 and in 2015 it is increased to1.81.This shows efficiency of operations



5) OPERATING POFIT TO AVERAGE WORKING FUND (Ratio)

Operating profit means is the profit earned from a bank's normal core operations and average working funds is total interest income minus total interest expenses. In 2014 the operating expenses to average fund is 1.79 and in 2015 it is increased to1.81 but the operating profit the average in 2014 is 2.19 and on 2015 is decreased by 2.06

B) APPROCHES APPLIED IN PUNJAB NATIONAL BANK

In the Punjab national bank two approaches are applied

1) Basic Indicator Approach (BIA)

2) The Standardized Approach (TSA)

1) THE BASIC INDICATORS APPROACH

The Basic Indicators Approach This approach is to be adopted by all banks in India from March 2007. This approach, would require banks to keep aside a percentage (equal to 15%) of positive gross annual income over the past three years excluding any year where gross income is negative as operational risk capital charge. It is important to mention here that even while banks in India are to introduce the operational risk capital charge from March 2007, we have estimated this capital charge from 2005. Apart from giving a historical perspective to the impact of the operational risk capital charge, the exercise will also provide a useful continuation to an early study of ICRA in this area. ICRA in its estimates had suggested that in 2005 scheduled commercial banks would need Rs.120 billion as additional capital requirements for operational risk.

1) Additional capital charge requirement for operational risk under the Basel II Accord for the Punjab national bank.

Capital charge requirement for operational risk

Year	Gross income (In cr.)	Annual capital required	Capital charge (In cr.)	Net worth	Current tier 1
2015	553035	40074.19	4488	34,487.14	9.31

Source: - PNB

Table presents the additional capital charge requirement for operational risk under the Basel II Accord for the Punjab national bank. Additional capital requirement on account of the Operational Risk capital charges for the Punjab national Bank and estimates indicate that the requirements on account of operational risk capital charges would be of the order of Rs. 4298 cores at the end of March 2015 and Rs. 4488 cores in March 2016. The requirement is estimated to be Rs.4542 cores for March 2015 and 5166 for 2016.

2) Impact of Operational Risk Capital Charge on Tier I Capital Basic Indicators Approach – Punjab National Bank

Operational Risk Capital Charge on Tier I Capital Basic Indicators Approach

TIER 1					
YEAR	Below 5%	Between 5-6%	Between 6-7%	Between 7-9%	Above 9%
2015					PNB

Source: - PNB

March 2007, when banks were to adopt the additional regulatory capital requirement for Operational Risk under the Basic Indicators Approach, regulatory Tier I capital adequacy would be below 6% for 6 of the 19 nationalized banks while nearly 10 of the 19 nationalized banks would have comfortable levels of Tier I capital (greater than 7%). In 2015 the regulatory tier1 is above 9% which shows capital adequacy.The charges may be expressed as follows: KBIA= [$\sum$ (GI1…n×α)] /n Where: KBIA = capital charge under the Basic Indicator Approach; GI = annual gross income, where positive, over the previous three years; N = number of the previous three years for which gross income is positive; α = 15%, as determined by the Basel Committee, connecting between the requisite level of capital and Indicator GI.

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THE STANDARDIZED APPROACH: Operational Risk capital charge under the Standardized Approach (SA) (though it is not to be adopted and is the second in the spectrum of approaches suggested by the Basel II Accord). This approach is a refinement of the Basic Indicators Approach and under this approach a bank's business is divided into eight business lines and different percentages is applied to each business line's gross income so as to arrive the Operational Risk capital charge. Operational Risk under the SA is sensitive to the decomposition of income from different business lines. KTSA ={ ∑years 1-3 max[Σ (GI1-8×β1-8), 0]}/3 Where: KTSA = the capital charge under the Standardized Approach GI1-8 = annual gross income in a given year, as defined above in the Basic Indicator Approach, for each of the eight business lines β1-8 = a fixed percentage, set by the Committee, relating the level of required capital to the level of the gross income for each of the eight business lines. The values of the betas are detailed below.

Values of beta in Standardized Approach

Business Lines	Beta Factors
Corporate finance (β1)	18%
Trading and sales (β2)	18%
Retail banking (β3)	12%
Commercial banking (β4)	15%
Payment and settlement (β5)	18%
Agency services (β6)	15%
Asset management (β7)	12%
Retail brokerage (β8)	12%

Average gross income in the past three years shall be calculated on the basis of audited/reviewed financial statements for the previous 12 quarters. When audited/reviewed financial statements are unavailable, banking corporations may use estimates per prior approval of the Supervisor. Under the SA, a bank's business lines can be broadly classified into 3 major lines – Investment Banking, Banking and Others. Each of these 3 lines at Level 1 are, in turn, decomposed into the following , **Investment Banking –** (I) Corporate Finance (ii) Trading &Sales **Banking** – (I) Retail Banking (ii) Commercial Banking (iii) Payment & Settlement and (iv) Agency Services

Others – (I) Asset Management (ii) Retail Brokerage and (iii) Insurance. Consequently, the estimation of Operational Risk capital charge has been restricted to Level 1 and the following heads of activity have been considered, viz. (I) corporate finance (ii) trading and sales under investment banking; (iii) Retail Banking and (iv) Commercial Banking under Banking. It is appropriate, here, to discuss the correspondence between the income from the different activity groups of a bank and available data. Data on income from corporate finance is the income a bank obtains from investments and other income, while income from trading and sales is the profit a bank makes from the sale of land, sale of investment assets and sale of foreign exchange, income from commission and brokerage and net repo income of the bank. Net repo income is the difference between interest earned on balances with the RBI and other inter-bank funds and the interest expended on borrowings from the RBI and other inter- bank funds. Some computations had to be undertaken to derive the income from retail and commercial banking and is obtained as under:

- Income from Retail Banking = credit outstanding against each occupation for individuals * the weighted average of lending rate for each of the occupations
- Credit outstanding under commercial banking = Total credit outstanding for each occupation – credit outstanding against individuals
- Income from commercial banking = credit outstanding under commercial banking activity * by the weighted average of lending rate for each of the occupations

The Operational Risk capital charge is then obtained by applying the relevant Beta to the gross income from a particular business line.

1) Operational Risk Capital Charge and Impact on Tier I Capital-(Standardized Approach)

Table Operational Risk Capital Charge and Impact on Tier I Capital

Year	Annual capital required	Capital charge (In cr.)	Net worth	Current tier 1	Estimated tier1
2015	27276.49	23443.17	34,487.14	9.31	9.10

SOURCE: - PNB

It indicates the additional capital requirement that has to be set aside by the different bank groups under the Standardized Approach would be higher than that estimated under the Basic Indicators Approach. There is difference in capital requirement of standardized approach and Basic Indicators Approach.

2) The Capital Requirement for the Market Risk (Under Standardized Duration Approach)

The Capital Requirement for the Market Risk

2015	**30.06.2015(Rs in millions)**
Risk Category	
I) Interest rate risk	163870.17
II) Foreign Exchange risk (including Gold)	272.20
III) Equity Risk	6783.80
IV) Total Capital charge for market risk under standardized duration Approach (I +II+II)	23443.17

SOURCE: - PNB

The Capital Requirement for the Market Risk (Under Standardized Duration Approach) Interest Rate Risk Is 163870.17 Foreign Exchange Risk (Including Gold) Is 272.20 Equity Risk Is 6783.80 Total Capital Charge For Market Risk under Standardized Duration Approach (I +II+II)Is 23443.17

3) Impact of Operational Risk Capital Charge on Tier I Standardized Approach – Punjab National Bank

Table - Impact of Operational Risk Capital Charge on Tier I Standardized Approach

TIER 1					
YEAR	Below 5%	Between 5-6%	Between 6-7%	Between 7-9%	Above 9%
2015					PNB

SOURCE: - PNB

Impact of Operational Risk Capital Charge on Tier I Standardized Approach of Punjab National Bank. March 2007, when banks were to adopt the additional regulatory capital requirement for Operational Risk under the Basic Indicators Approach, regulatory Tier I capital adequacy would

be below 6% for 6 of the 19 nationalized banks while nearly 10 of the 19 nationalized banks would have comfortable levels of Tier I capital (greater than 7%). In 2016 the regulatory tier1 is above 9% which shows capital adequacy

OPERATIONAL RISK MANAGEMENT ACTIVITIES OF THE PUNJAB NATIONAL BANK.

A) Risk Management Structure: An independent Risk Governance structure is in place for Integrated Risk Management covering Credit, Market, Operational and Group Risks. This framework visualizes empowerment of Business Units at the operating level, with technology being the key driver, enabling identification and management of risk at the place of origination. Being alive to this imperative, efforts are on hand to enhance the degree of awareness at the operating level in alignment with better risk management practices, Basel II requirements and the overarching aim of the conservation and optimum use of capital. Keeping in view the changes which the Bank's portfolios may undergo in stressed situations, the Bank has in place a policy which provides a framework for conducting Stress Tests at periodic intervals and initiating remedial measures wherever warranted. The scope of the tests is constantly reviewed to include more stringent scenarios. Risk Management is perceived as an enabler for business growth and in strategic business planning, by aligning business strategy to the underlying risks. This is achieved by constantly reassessing the interdependencies / interfaces amongst each silo of Risk and business functions.

B) Basel II Implementation: The Bank, as per RBI Guidelines, has migrated to Basel II as on 31st March 2008. Simultaneously, processes have been set in train for fine-tuning systems & procedures, IT capabilities and Risk Basel II Implementation. The Bank, as per RBI Guidelines, has migrated to Basel II as on 31st March 2008. Simultaneously, processes have been set in train for fine-tuning systems & procedures, IT capabilities and Risk

C) Capital Adequacy: The bank believes in the total risk management. The bank views the risk management functions as a holistic approach where by risk retention is considered appropriate after giving due consideration to factor such as specific risk characteristics of obligator, inter relationship between risk variables and corresponding return and achievement of various business objectives within in the controlled operational risk environment. The bank believes that the risk management is the one of the foremost responsibility of top/senior management.

D) PNB VIGILANCE FOR OPERATIONAL RISK: PNB is conferred with the prestigious "Corporate Vigilance Excellence Award": 201415 from the Institute of Public Enterprise, Hyderabad for the 2nd time in succession, organized Vigilance Officers conclave of vigilance professionals of PSEs on 13th March 2015, at Hyderabad considering the following remarkable achievements of the Bank in Vigilance Administration:

FINDINGS & SUGGESTIONS: The present study has made an attempt to examine the various aspects relating to the management of the Operation Risks in general and operational risks in Punjab National Bank. The study has examined various drivers of Operational Risks and measurement techniques and effective management of Operational Risks. The following are the findings drawn from the study of the secondary data. Banks is one of the drivers of the economy, especially when the economy is sluggish; Banking due to its forward and backward linkages accelerates the economic activity of the economy. The Operational Risks has been identified as one the major risks that the SCBs are exposed to. The financial crisis of 2007-2008 was the result of the failure to identify the operational risks especially in sub-prime lending in mortgages. Basel-I and Basel-II Accord have broadly defined the Operational Risks as" Basel Committee –I has defined the operational risk as, "any risk which is not categorized as market or credit risk or the risk of loss arising from various types of human or technical errors."Further, Basel Committee –II defined operational risk as "The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk but excludes strategic and reputational risk." Operational risks involve breakdown in internal control and corporate governance, which lead to financial losses through errors, frauds or failure. Operational risks occur also due to the negligence of lending officer or staff exceeding their authority or conducting business in an unethical or risky manner due to which the banks may incur loss. In the Indian context, all though there are stray incidents of operational risks, the severity has been well kept under control as the banking system is not only conventional but guided by the stringent RBI guidelines. There are three approaches to measures the operational risk of bank(i) the Basic Indicator Approach (BIA) (ii) the Standardized Approach (TSA) (iii) Advanced Measurement Approach. The capital adequacy of Punjab National bank is 9.31.It shows Efficiency of the bank. Punjab national Bank and estimates indicate that the requirements on account of operational risk capital charges would be of the order of Rs. 4298 cores at the end of March 2015 and Rs. 4488 cores in March 2016. The Capital Requirement for the Market Risk (Under Standardized Duration Approach) Interest Rate Risk Is 163870.17 Foreign Exchange Risk (Including Gold) Is 272.20 Equity Risk Is 6783.80 Total Capital Charge For Market Risk under Standardized Duration Approach is 23443.17. The operating profit is11384 and in 2015 is 11955 there is increase of Rs 571 cr. It is slow according to the efficiency. The business per branch is 127.42 in 2016 there is increase in 2016 from 2014 by 1.32. The business per employee from 2014 to 2015 by 0.73 and in 2016 the business per employee is 13.19 there is also increase in 2016 from 2014 by 0.81. In 2014 the operating expenses to average fund is 1.79 and in 2015 it is increased to 1.81.This shows efficiency of operations. In 2014 the operating expenses to average fund is 1.79 and in 2015 it is increased to1.81 but the operating profit the average in 2014 is 2.19 and on 2015 is decreased by 2.06. Operational risk management activities of the Punjab National bank are risk management structure, Basel (ii) implementation, capital adequacy, PNB vigilance for operational risk. RBI has been time and again in compliance to the Basel-I and II Accord has been regulating the various lending instruments use to advance housing finance, and has directed the SCBs to maintain minimum Capital Adequacy Ratio of 9

per cent. Operational Risk is the risk of loss from inadequate or failed internal processes, people, and systems or from external events. It is fraud, human error, and system failures. The inadequate communication of information between different levels of managements within the Bank`s upward, downward or cross-functional systems and inadequate and ineffective audit monitoring programs lead to the operational risks in the financing housing by the SCBs. **SUGGESTIONS:** Punjab National Bank should establish a specialized Risk Monitoring mechanism the investigations and monitoring should be conducted on centralized manners. The Risk investigation requires competence in "Forensic Audit" and also technical/transactional expertise. In this regard, banks may take immediate steps to identify staff with proper aptitude and provide necessary training to them in forensic audit so that only such skilled staff is deployed for investigation of the operational Risks. The banks may build up a data /information pool of large value of the loss due to the operational risks and analyses them periodically which may act as knowledge repository for policy responses. Given the thin line of differences between serious wrongdoings and frauds, the banks should immediately put in place an adequately enabled and efficient "Internal Oversight. Bank should follow the Basel Guidelines for Operational risk management. Bank should follow the RBI Guidelines for Operational Risk Management. Proposals for mitigating systemic risks in the banks include the imposition of minimum capital requirements on all banks financing housing and regulations on the use of short-term debt to finance holdings of long-term assets, and changes to market value accounting rules. One of the major causes of the recent financial crisis was the extreme leverage to the financial institutions which made them vulnerable to losses. Therefore, it is necessary to strengthen capital requirements for commercial banks. In addition to this, the banks which are into large extent of mortgage loans should hold more capital as a percentage of their assets, than those banks advancing smaller amounts to housing finance. To mitigate the losses from the mortgage loans adopt Insurance as a mitigator and establish a provision for operational losses similar to traditional loan loss reserves. In addition to this, the banks should explore the use of reinsurance, from captive subsidiaries to cover operational losses.

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