

# Workforce challenges in Indian banking scenario – Journey from identification till mitigation

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**The banking industry has been going through rapid transformation due to progressive economic reforms, changing demographics and fast-paced technological developments. Banks in India have been facing multitudinous challenges such as regulatory risks, upgradation of technology, intense competition, workforce challenges and operational risk. Workforce challenge plays a vital role among other challenges. The extant literature review shows that several studies have identified various workforce challenges of banks. However, their impact has not been quantified for effective risk mitigation. Such studies are more observatory than investigational. The present study aims to identify the major workforce challenges of banks through a structured approach that includes literature review, focus group discussion, assimilation of consultancy reports and conducting risk perception survey. The scope of the current study is limited to Indian public and private sector banks. As per literature review, the major workforce challenges identified are lack of required skills, performance management, inadequate recruitment and career planning and increasing staff cost. The workforce challenges are identified using factor analysis and a conceptual model is proposed for mitigation of key challenges.**

**Keywords:** Factor analysis, Indian banking system, risk mitigation framework, workforce challenges, workforce challenges assessment.

BANKS are the life blood of any financial system. The concept of banking started during the inception of money. The Indian banking system has gone through three distinct phases. The first phase that started in 1786 laid the foundation for the formation and development of the Indian banking system<sup>1</sup>. The second phase of banking evolution between 1969 and 1991, witnessed major change in policy reforms, scope and regulation of banking services. Fourteen major banks were nationalized in 1969 and another six in 1980. The major milestone during this phase was the creation of Credit Guarantee Corporation and license issued by RBI to setup regional rural banks.

The third phase that started during post-liberalization in 1991 transformed traditional banking into technology enabled banking system by the introduction of ATM services, mobile banking, electronic banking services and core banking.

The increasing emphasis on globalization of Indian economy has opened up new avenues and challenges for Indian banks. Indian banks are facing major challenges with respect to declining asset quality of public sector banks, inadequate capital adequacy, high transaction cost, technology upgradation, asset liability management and workforce challenges<sup>2-7</sup>. The nature of workforce challenges, its impact and severity varies according to the types of banks and the region where it operates. The outcome of the study would facilitate banks to effectively address the workforce challenges which will in turn enhance the satisfaction and productivity of employees.

The present article is organized as follows: The first section covers the research motivation. Next an overview of the current employee strength of the Indian banking system is presented. This is followed by a brief literature review about the context. Then the methodology of this study is provided followed by an analysis of the data. The features/observations of the analysis are then discussed. An innovative conceptual framework for mitigation of banking workforce challenges is proposed, followed by concluding observations.

## Employee strength in the Indian banking system

The Indian banking system has been experiencing an increase in employee intake over the last five decades. The industry has been one of the largest recruiters and is expected to generate more than 20 lakh jobs in the next 5–10 years<sup>8</sup>. New banks are being set up in Tier 2, 3 and 4 cities and there will be a growing demand for business correspondents, sales executives and other banking professionals to reach out to the rural population. While there are ample growth opportunities, the sector is expected to face major workforce challenges. The major success of a bank depends on satisfaction of employees who are the major stakeholders of business<sup>9</sup>. The trend analysis of employee strength in Indian public sector

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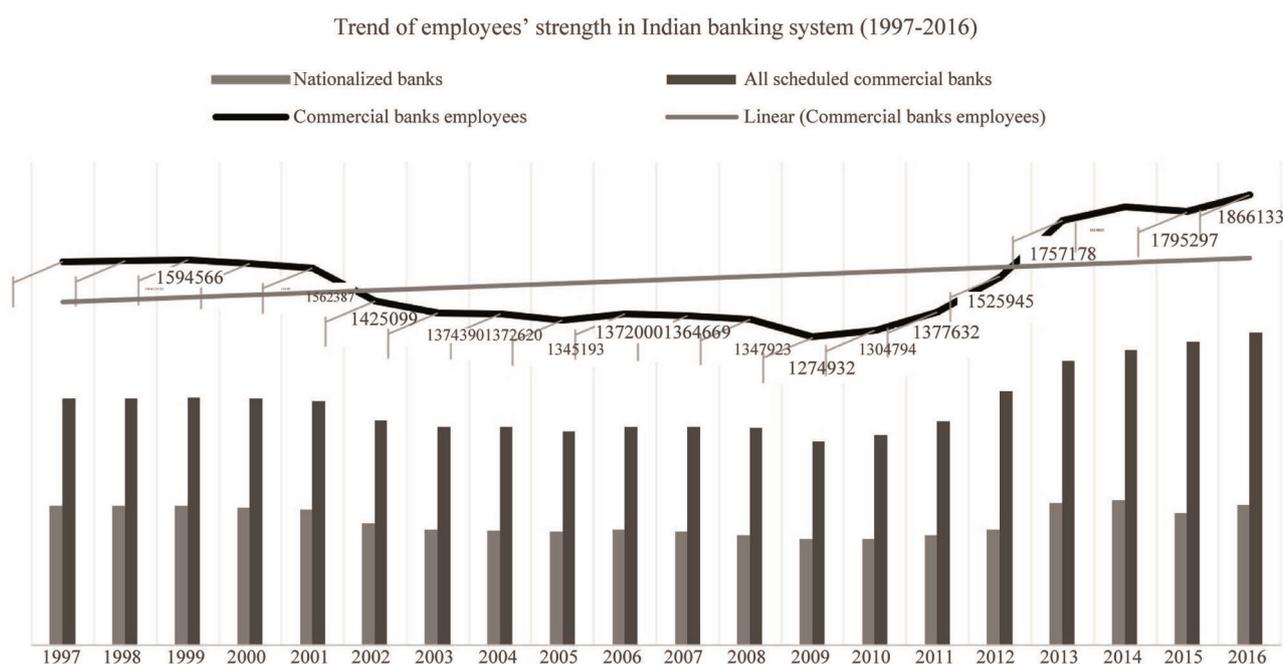


Figure 1. Employee strength in Indian banks source: Reserve Bank of India (RBI).

banks shows an upward trend with an aggregate slope of 5%. Therefore, workforce management is one of the critical success factors for the banking sector (Figure 1).

*Objectives*

In seeking to explore the workforce challenges of the Indian banking sector, the major objectives of the study are: (1) to identify the various factors of workforce challenges of the Indian commercial banking system; (2) to assess the workforce challenges and its impact on the Indian commercial banking system and (3) to suggest a model for mitigation of workforce challenges.

**Literature review**

Literature review examines the challenges of the Indian banking system and issues pertaining to the workforce. Dynamism in Indian banking can be attributed to challenges such as upward direction of interest rates, demanding customers, financial inclusion, technological advancements, competition for human talent and efficient-utilization of a bank’s resources<sup>10</sup>.

A study conducted in Nigeria shows that there are interrelationships among labour unions, employees and employers in commercial banks<sup>11</sup>. The study attempted to find out the causes and consequences of staff retrenchment in the banking sector and also to identify the various employment laws, statutes and main regulatory

agencies. It is expected that 25–31% of business service jobs in the banking industry will face the risk of automation in the next 20 years, where repetitive and highly structured jobs are expected to decline<sup>12</sup>.

A study on Indian banking HRD system showed a dearth of comprehensive understanding of challenges that hit various aspects of Indian banking<sup>13</sup>. This article ascertains various challenges faced by the Indian banking industry and recommends changes to be made with respect to human resource development. In an environment that calls for strategic changes, implications can be drawn for studies addressing issues like investment in HR, reaction to changes in HR practices and feasible solutions to manage change.

A study on human resource issues in banks emphasizes the need for banks to be multi-faceted, like assessment of skill requirement, identifying and bridging the gaps, identifying the talent, putting the available talent to optimum pool, attracting fresh talent, retention of talent and change management<sup>3</sup>.

SBI Chairperson Arundhati Bhattacharya mentioned the difficulties in giving market-related salaries<sup>14</sup>. The bank is trying to hire people at lower levels directly from campuses and on contract. This obviates their ability to have a career with the bank and therefore may not be that attractive.

Several studies emphasized on identification of workforce challenges which is an outcome of the working environment uncertainty towards employees<sup>5,9,15,16</sup>. However, the impact of these challenges could be negative or

positive for both employee and employer; however empirical studies around it are not sufficiently addressed and subsequent mitigation is not suggested. The gap in existing studies is addressed in this article.

## Research methodology

In order to identify factors challenging the workforce in the Indian banking system, exploratory research design method is used. First, a set of key factors were identified through literature review in the Indian banking system. Further to finalize factors challenging the workforce, semi-structured primary discussion in the form of an open ended questionnaire was administered to 25 bank officials (average experience of more than 5 years including bank managers, hiring officials and human resource officials who administer the bank workforce were considered for the discussion).

### *Primary survey and use of factor analysis for challenge assessment*

Factor analysis is mainly used to interpret data and analyse the underlying relationships between variables and other underlying factors that may determine workforce challenges<sup>17</sup>. Instead of grouping responses and response types, factor analysis segregates the variables and groups these according to their co-relevance. There are mainly two types of factor analysis used for different kinds of market research and analysis, exploratory factor analysis (note 1) and a confirmatory factor analysis (note 2). For this study, exploratory factor analysis has been used to analyse the result.

After identifying of workforce challenges, a questionnaire was prepared on a (1–5) likert scale, which was thoroughly reviewed and circulated among 270 bank officials of public and private sector banks in India including State Bank of India, Union Bank, Oriental Bank of Commerce, ICICI, HDFC and so on. Most bank officials' responses were collected in urban areas. In this study, it was decided to send questionnaire to all technical, managerial and operational employees of public and private sector banks, who have an average experience in the range 5–25 years and to those who are directly or indirectly related to the workforce in the Indian banking system. Initially a pilot survey was conducted with 50 officials to check the understanding of the questionnaire by respondents. Finally, a total of 236 responses were collected and with data mining, 170 responses were analysed for impact assessment. Impact assessment was performed using factor analysis where interpretation was based on correlation matrix, eigen value matrix and scree plot. The result of factor analysis provides high influential factors and correspondingly high impact factors are answered through proper mitigation measures.

The third objective of the study is to suggest a mitigation framework for high impact factor which is derived from factor analysis. To frame mitigation measures literature was reviewed globally and measures handling similar challenges are counted. It is perceived that some measures can be used to mitigate several challenges. Finally, after identifying and assessing the impact of factors, with the level of impact severity, an integrated approach is followed to suggest a closed mitigation framework to deal with workforce challenges.

## Workforce challenges identification

Workforce challenge is a situation where probabilities cannot be objectively assigned and where all future contingencies may not be known<sup>6</sup>. Many studies pertaining to the Indian banking system have covered the qualitative aspects of workforce challenges. The expected increase in retirement of senior and middle management executives is bound to create a vacuum in the leadership pipeline<sup>18</sup>. This move is likely to have reverberations throughout the human resource management. The public sector banks will witness unprecedented loss of skills and competencies in the form of retiring senior and middle management executives over the next few years. The Khandelwal committee, addressed leadership gaps (note 3) in public sector banks as palpable.

The growth rate of deposits, advances and total business was more than the growth of bank branch expansion<sup>19</sup> and employee recruitment (note 4). It shows that the business performance of nationalized banks improved during the study period, but the co-efficients of variation (note 5) of branch expansion and employee recruitments were relatively low. Public sector banks are involved in payment of pension, old age pension, MGNREGA payment, teacher salary payment, tax collection, selling of gold, mutual funds and insurance products, etc. Public sector banks have to shoulder the responsibility of achieving the milestone of financial inclusion initiated by the Government of India. It calls for new banking models and innovative methods of delivering services as payment banks, banking through correspondents and other forms of banking create a demand for new skill sets. Furthermore, the existing human resources need to be trained on the competencies required for the future. As a result, banks need to focus on recruitment, training and development and retention.

The Indian banking organization structure has four layers, i.e. junior management, middle management, senior management and top management<sup>2</sup>. Yet the public sector banks recruit more clerks at the junior level; whereas private sector banks have changed their hiring trends. There is wide disparity between the ratio of clerks and officers (note 6) between public sector and private sector banks. However, the country's largest bank, State Bank of India

(SBI), still has more clerks than officers on its rolls (RBI).

The change in employee profile has been necessitated by computerization of the banking system, which has rendered clerical functions almost redundant. It is known as the ‘maker-checker model’, explains a PSU bank official. ‘Now that most of the banking system is computerized, there is no need to check transactions manually.’ In 2010, the clerical staff constituted the single largest cadre in the total workforce (42%) of public sector banks<sup>20</sup>.

The cost of staff (note 6) per employee for public sector banks nearly doubled in the five years between 2007 and 2015 (refs 9, 15). The median cost to company at state run banks is higher than private sector banks at junior and mid-management level. At senior and top management levels, the pay in public banks lags significantly compared to private sector banks. Combined with relatively higher entry-level cash salaries, the benefits make total pay at public sector banks competitive compared to private sector banks at the junior- and mid-management levels.

The advent of IT has shifted traditional banking to technology-driven modern banking<sup>21</sup>. The abrupt implementation of technology enabled processes such as core banking solution, internet and mobile banking and branchless banking has created the need for specific IT skills. As a repercussion, it has created a skill gap among employees especially traditionalists, baby boomers and Gen X to some extent.

With banking products becoming increasingly complex and new business models emerging, public sector banks (PSBs) would be required to recruit and use a large number of specialists in a variety of areas like risk management, IT, HR, treasury, forex, etc. Acquiring and retaining such specialist resources will be a major challenge for PSBs. Banks today need a ‘digital workforce’ to converge diverse platforms like mobile solutions, social media, biometrics, etc. to render seamless and highly customized banking services<sup>19</sup>.

One of the weakest links in the HR policies of PSBs is career planning<sup>5</sup>. Policies in force for several years had built in rigidity in the matter of minimum length of service required to be put in by an officer in a particular scale<sup>22</sup>, for becoming eligible for promotion to the next higher scale (note 7).

The performance management system (PMS) that helps to grow, develop and strive for excellence (the only system that ensures optimum utilization of human capital to achieve business results) has been emphasized<sup>23</sup>.

The major impact on banking employees was seen during demonetization that was announced on 8 November 2016. Currency exchange within the deadline was a big challenge for bank officials. Apart from savings and current accounts, bank officials had to deal with 25 crore Jan Dhan accounts. The deposits in these accounts more than doubled to Rs 87,000 crores in 45 days of post-

demonetization<sup>24</sup>. During this time, banks had to exchange 86% of demonetized currency notes in circulation with new notes. The direct transfer of subsidy and other initiatives increased the workload of employees. Banking organizations have greatly expanded the scope and complexity of their activities and face an ever-changing and increasingly complex regulatory environment. So after considering both views, viz. review of literature and expert opinion, 8 driving factors (Figure 2) were identified as most significant for creating workforce challenges in the Indian banking sector. They are: (i) disparity between employees and business; (ii) lack of required skill; (iii) irregularity in career planning; (iv) performance management; (v) excessive retirement of worthy skill set; (vi) increasing workload in compliance with new business; (vii) excessive employee cost; and (viii) disparity in recruitment planning.

### Analysis, results and discussion

Factor analysis is a multivariate technique which emphasizes on data reduction and data summarization. The aim is to identify the underlying latent variables leading to challenging factors of workforce. The most appropriate technique available in multivariate data analysis is Exploratory Factor Analysis (EFA). The aim of EFA is to determine the latent structure of a particular dataset by discovering common factors. The Kaiser-Meyer-Olkin (KMO) index measures the sampling adequacy. Any value of KMO greater than 0.6 is deemed to be good. Bartlett’s test of sphericity tests the overall significance of all the correlations. From the output, KMO measure is 0.788

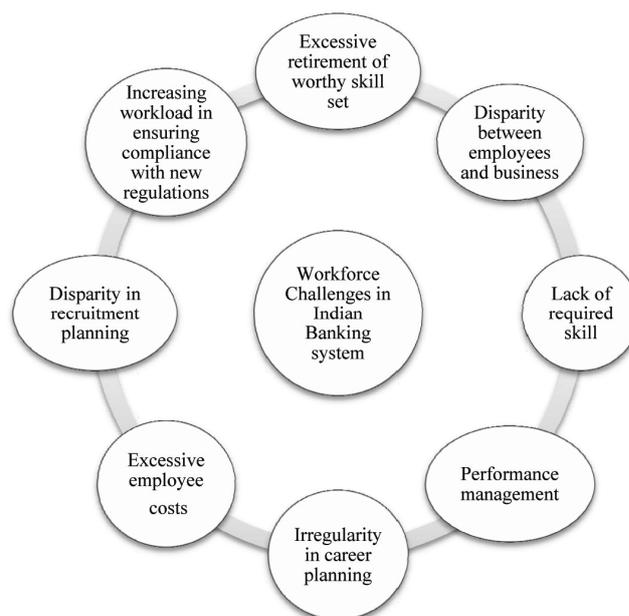


Figure 2. Workforce challenges of Indian banking system.

which is in the significant zone and more than 0.6. Bartlett’s test of sphericity is also satisfied with almost less *p* value which is evident from Table 1. To make the analysis more compressive, inferences were drawn based on the eight observed variables: The mean and standard deviation are shown in Table 2.

The five independent clusters of variables could be explained by the existence of two independent latent variables, each of which is responsible for the variability of one cluster of observed variables.

Even if two clusters of observed variables seem to exist in the data, the correlation values among variables are systematically low. In multivariate data analysis the relationship between observed variables is typically described using the standardized variance/covariance matrix (Table 3). As observed, the value of the variances in the correlation matrix is 1 for all the variables the reason for this is that the variables have been standardized.

In the analysis, the common variance is partitioned from its unique variance and error variance, so that only the common variance is present in the factor structure. This means that the percentage of explained variance should be reported in terms of common variance.

In a typical real situation, probably involving many more latent variables, few observed variables per latent variable and low communality, the visual inspection of the correlation matrix would be useless. The eigen values associated with the reduced correlation matrix are shown in Table 4. As observed, none of the eigen values is negative.

An unknown number of latent variables may explain the relationship between the eight observed variables. Variables 1 and 2 have loadings of 0.577 and 0.463; this

suggests that factor one is a combination of disparity between employee and business and lack of required skills; this factor can be named as skill gap (note 8). Excessive retirement of worthy skill set will have factor loading of 0.757 as one factor named as scarcity of skilled human resource. Irregularity in career planning and performance management with factor loading of 0.504 and 0.553 jointly make a factor called employee performance. Increasing workload in compliance with new business, excessive employee cost and disparity in recruitment planning will form a cluster known as excessive load and cost to bank.

The extraction of two factors accounts for 77.3% of the common variance (note 9). The scree plot shows the eigen values on the Y-axis the number of factors (components) on the X-axis. The point where the slope of the curve is clearly levelling off (the elbow) indicates the number of factors that should be generated by the analysis (Figure 3). As seen in the graph the first two factor loadings show greater variance and the rest are very close. This indicates that the first three factors have a major impact and the differentiable rest are clustered. When the scree plot was drawn, a perfect slope with clearly levelling off curve was obtained indicating that the analysis was done perfectly.

Based on factor analysis it was concluded that the two major workforce challenges involved in the banking sector are selection problem and worthy skill requirement. Studies of the RBI data on profitability of the banking sector reveal that these banks face various financial losses every year due to multiple reasons, viz. lack of required skills, issues with workforce selection, disparity in career planning, among others<sup>2,9,15</sup>. In this backdrop, the next section proposes an innovative conceptual framework for mitigation of banking challenges.

**Table 1.** Kaiser–Meyer–Olkin measure of sampling adequacy and goodness of fit

$\chi^2$ (observed value)	35.684
$\chi^2$ (critical value)	22.362
<i>p</i> -value	0.001
$\alpha$	0.05
KMO	0.788

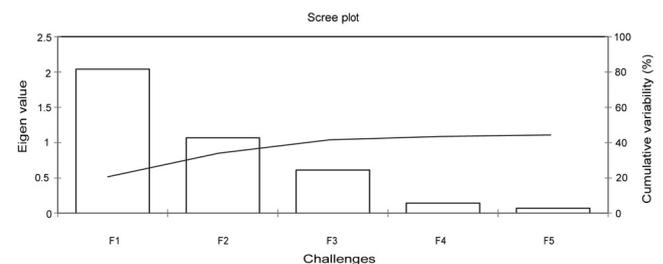
**Table 2.** Summary statistics of responses

Variable No.	Variable	Mean	Std deviation
V1	Disparity between employees and business	3.682	0.957
V2	Lack of required skill	3.856	0.934
V3	Irregularity in career planning	3.542	1.008
V4	Performance management	3.737	0.889
V5	Excessive retirement of worthy skill set	2.746	1.286
V6	Increasing workload in compliance with new business	3.487	1.158
V7	Excessive employee cost	3.809	0.923
V8	Disparity in recruitment planning	2.903	1.309

### Conceptual mitigation framework

The outcome of factor analysis shows that the Indian banking system is exposed to work force challenges at varying proposition. In this section, we propose a hybrid approach conceptual framework for mitigation of workforce challenges.

However, two innovative decision-making models that have become well known globally are reviewed first



**Figure 3.** Scree plot showing factors eigen value.

**Table 3.** Reproduced correlation matrix and eigen value

Variables	Disparity between employees and business	Lack of required skill	Irregularity in career planning	Performance management	Excessive retirement of worthy skill set	Increasing workload in compliance with new business	Excessive employee cost	Disparity in recruitment planning
Disparity between employees and business	1	0.353	0.294	0.452	0.353	0.256	0.230	0.193
Lack of required skill	0.353	1	0.278	0.267	0.327	0.223	0.195	0.232
Irregularity in career planning	0.294	0.278	1	0.260	0.343	0.207	0.295	0.350
Performance management	0.452	0.267	0.260	1	0.354	0.278	0.291	0.303
Excessive retirement of worthy skill set	0.353	0.327	0.343	0.203	1	0.364	0.265	0.324
Increasing workload in compliance with new business	0.256	0.223	0.207	0.278	0.364	1	0.354	0.214
Excessive employee cost	0.230	0.195	0.295	0.291	0.265	0.354	1	0.365
Disparity in recruitment planning	0.193	0.232	0.350	0.303	0.324	0.214	0.299	1
Eigen value	2.130	1.521	1.454	1.075	0.953	0.568	0.299	0.000
percentage of explained variance	26.6%	19.0%	18.2%	13.4%	11.9%	7.1%	3.7%	0.0%
Accumulated explained variance	26.6%	45.6%	63.8%	77.3%	89.2%	96.3%	100.0%	100.0%

**Table 4.** Loading matrix of component solution after varimax rotation

	F1	F2	Initial communality	Final communality	Specific variance
Disparity between employees and business	0.577	-0.415	0.371	0.505	0.495
Lack of required skill (v2)	0.463	-0.211	0.189	0.259	0.741
Irregularity in career planning (v3)	0.504	-0.032	0.214	0.255	0.745
Performance management (v4)	0.553	-0.233	0.279	0.360	0.640
Excessive retirement of worthy skill set (v5)	0.757		0.532	0.587	0.413
Increasing workload in compliance with new business (v6)	0.528	0.132	0.247	0.297	0.703
Excessive employee cost (v7)	0.523	0.114	0.234	0.286	0.714
Disparity in recruitment planning (v8)	0.683	0.388	0.493	0.617	0.383

before the model is presented. The two frameworks reviewed are ‘stream analysis’ (note 10) and ‘learning organization’ (note 11). A hybrid approach of the two is applied in this study which not only delivers a new conceptual approach to decision-making but is also prescriptive in nature as it provides a guide to action.

*Proposed conceptual mitigation framework for banking workforce challenges*

A conceptual framework of mitigation of workforce challenges for the banking sector in India is proposed in Figure 4. Based on literature review and expert opinion from this industry, two problems related to workforce challenges are identified, viz. (a) systematic challenges originating at the employee level; and (b) unsystematic challenges originating through the business system. The two problems are analysed and six challenging drivers are identified during quantification of factors in the previous section. The proposed model prescribes tackling the two problems simultaneously using cause–effect relationship.

India also has the world’s second largest population of higher education students and is projected to surpass China in the next decade. Despite this advantage, a vast majority of graduates (75% or more) are not considered employable<sup>25</sup>.

Banks need to effectively address the acute skill shortage in the system. In order to make the banking work environment more time-managed, adaption to new technology is a prerequisite. Due to the fast growing economy with dynamic technological development and skill innovations, employees are less likely to adjust to the work culture. Banking operational loss due to human errors is 7% in the Indian banking scenario. To minimize such losses, employees should be well trained in the latest technologies and made to understand the effect of human errors on profitability. Banks may address these issues through a well-structured training need analysis and setting of targets for the number of man days of training.

The Banking Regulation Act allows bank employees to work till the age of 60 years. Subordinates need to take charge immediately after the retirement of his/her senior. This system has been practised as a routine transaction

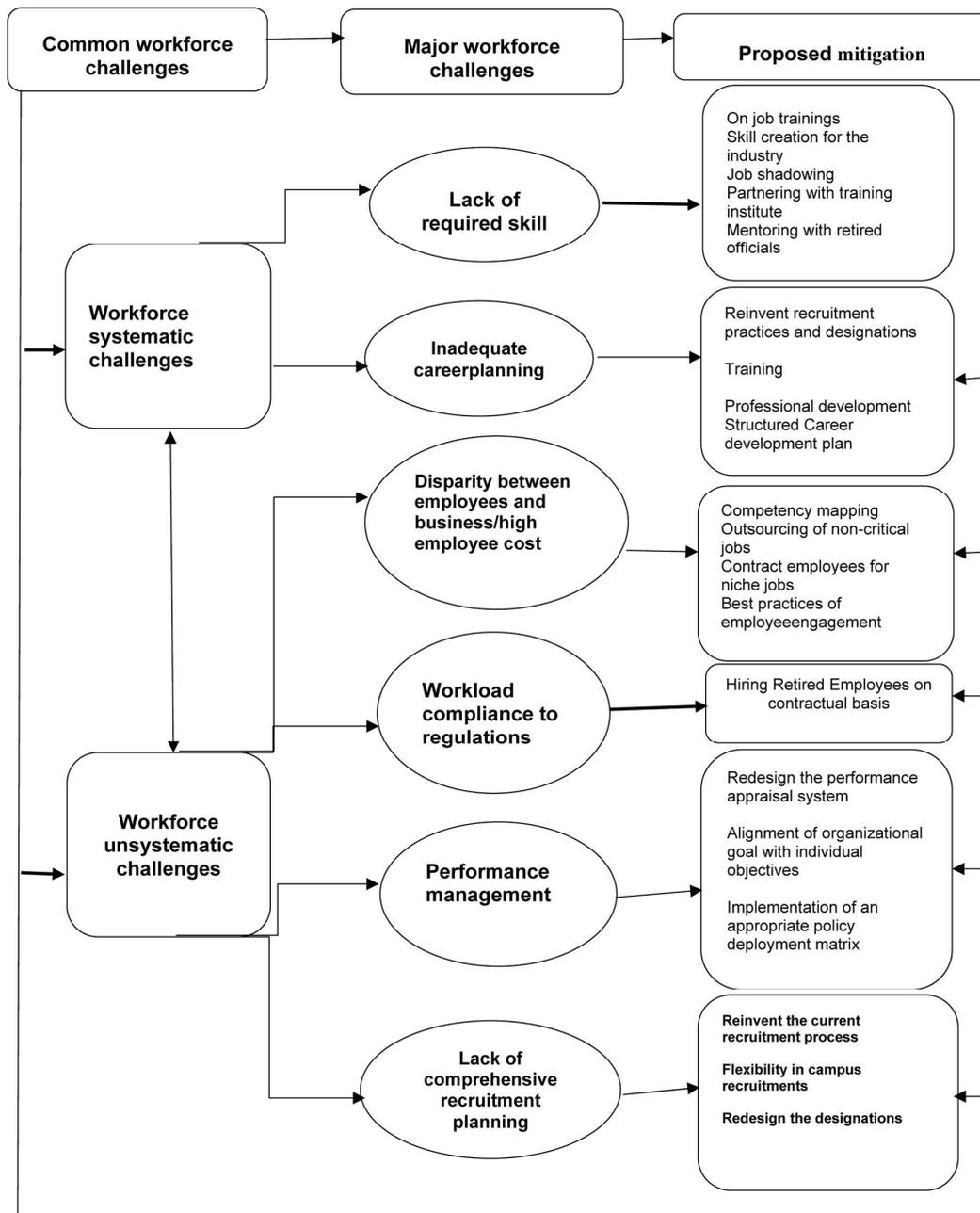


Figure 4. Workforce challenges mitigation model.

rather than as a pre-planned system of grooming the subordinate by the superior before his/her retirement. On the job trainings conducted by retired employees on contractual basis support grooming of existing staff at an optimum training cost.

The report of the committee on HR issues of public sector banks mentions that banks should strengthen their human resource management with special thrust on areas such as recruitment, performance assessment, promotion and job rotation. RBI has made certifications necessary in areas like treasury operations; risk management covering credit risk, market risk, operational risk and liquidity risk;

preparation of financial results; audit function and credit appraisal; rating; monitoring and credit administration. Banks are free to make certifications necessary for other areas of work as well. RBI is also planning to set up an accreditation agency for assuming and accrediting learning initiatives within the banking industry<sup>26</sup>. In this article, the authors support the RBI policy on relevant and mandatory certified programmes on niche job areas which make employees more appropriate and efficient for the job profile.

The current selection procedure in the Indian banking area is quite specific. However, some ambiguities have

been seen in employee selection. There should be some rationale prior to selection of employees like grade, competency across domains, multiple skills, etc. The current selection process in the Indian banking system is more focused on educational background rather than an competency. Public sector banks have been facing human resource challenges due to recruitment freeze in 1990. Annual retirements in the past have created a leadership vacuum at the middle and top level management. Due to the demand for specific skills, public sector banks are recruiting highly qualified professionals like IIT pass-outs, who leave the organization within a year, leaving the posts vacant. Further, banks are not able to pay competitive salaries for those hired through campus recruitment for specific skills. The banks should recruit graduates in the clerical cadre, who are expected to remain in service for a longer period.

Due to technology advancements in the current banking area, it is necessary to relook at the recruitment criteria, with more emphasis on technical skills. Hiring should not be limited to the entry level and should also be open at all levels. Current practices in the Indian banking system focus only on the entry level while middle and senior level positions are filled through internal departmental bank examination.

Any incentive related scheme with high business guarantee will promote high performance in human resources. Similarly, penalty will help avoid omissions, which in turn improves productivity and efficiency of the banking business. Employees making an outstanding contribution through their performance towards these objectives should be entitled for a performance linked incentive. Banks would thus be required to instal and implement a strong and credible PMS<sup>16</sup>.

With the advent of technology and expansion of work profile, there are certain profiles in the banking business which have scope of work for a very short span of time, i.e. financial year ending schemes renewal, etc. For specific jobs getting specialized people is sometimes a tedious task and hence banks usually hire such people on a regular basis which creates a huge financial burden on the banking system. Solution to specific skill pull needs to be dealt with by niche area related contractual employees for a specific time span. Collaboration with academic institutes helps banks obtain the exact skill pull based on the job profile. Since the courses designed by academic institutions are in collaboration with bank employees, the training duration of newly joined employees will be reduced which saves costs for the banks.

## Conclusion

Workforces are major assets for any banking business. The workforce problem is more pronounced in this sector because banking businesses mostly rely on employees'

skills and persistence. When the human resource of banking business is under tremendous pressure, the banking business also suffers exponentially. Banks are always on the lookout to arrest such issues.

In this study, major workforce challenges are identified and quantified. The significant challenges are lack of required skills, irregularity in career planning, workforce compliance to business regulations, performance management, irregularity in career planning and high employee cost among others. The quantification of all these factors was analysed using exploratory factor analysis. The results indicate that banking sector is severely impacted due to workforce challenges. The quantification shows that lack of required skills and irregularity in career planning are the dominating factors to be tackled.

This study also facilitates with a conceptual framework for mitigating challenges in the Indian banking system. Since reforms in the banking business is an agenda for the policy makers, regulators and experts in this sector, it is important for them to intervene to correct any imperfections. To summarize, the framework presented in the article attempts to capture key facets and dynamics of challenges of banks with reference to its employees.

'Human resource is the life blood of any business.' The success of a business relies on how the organization unleashes the potential of its human resources. This study could help banks unearth workforce challenges through a structured approach. The workforce challenges identified in this study are confined to the current business environment of the banking industry. Technology disruption in the industry may trigger new challenges such as change in the business model, skill development, leveraging technology for customer service and engagement in the future. Further studies may be carried out to identify the impact of technology disruption on workforce challenges and its impact on bank performance. The scope of future research may be extended to include other challenges of banks such as strategic, operational and technological challenges.

## Notes

1. Exploratory factor analysis is used to measure the underlying factors that affect the variables in a data structure without setting any predefined structure to the outcome.
2. Confirmation factor analysis is used as tool in market research and analysis to reconfirm the effect and correlation of an existing set of predetermined factors and variables that affects these factors.
3. In total, 1.8 lakh employees will retire and depending upon the productivity growth, the industry will need 2.5–4.5 lakh additional people for growth in business.
4. It registered negative annual growth of –1.59% with an average of 477,428 employees working every year.
5. The group which has less coefficient of variation is said to be more stable. A high coefficient of variation indicates less consistency or homogeneity.
6. In private banks, only 21% of the nearly 300,000 employees fall in the category of clerks.

7. It took 17 years for an officer in scale I to become chief manager (scale IV) and another 8 years to become general manager (scale VIII).
8. Skill gap in banking business is wide where knowledge of employees is poor about understanding the role of banking for Indian economy; players in the market; different kind of customers need as rural, urban, etc.
9. The eigenvalues are added, the resulting total should be the total variance in the correlation matrix (i.e., the addition  $2.130 + 1.521 + 1.455 + 1.075 + 0.953 + 0.568 + 0.299$  should be = 8). The percentage of explained variance of each component can be easily computed as the corresponding eigenvalue divided by the total variance: for example, the percentage of variance explained by the first component which is disparity between employees and business is  $2.130/8 = 0.266$  (or in terms of percentage 26.6%). The first component also accounts for 26.6% of the variance. Similarly for next factor loading comes out as 19% and so on. Major first two clusters will jointly make it 77.3.
10. Stream analysis method which emphasis on creative problem solving in organizations<sup>27</sup>. Here, the problems are characterized graphically into four streams – organizing arrangements, physical setting, technology, and social factors<sup>28</sup>. This graphical approach helps organizations focus their efforts on core issues.
11. Learning organizations are ‘organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together’<sup>29</sup>.
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