

# Business Intelligence and HR Analytics of Bangla Puzzle Limited for Candidate Selection

## Introduction

Organizations all over the world are now shifting their focus to using data to make decisions to stay ahead of the highly advanced technology that characterizes the current times. This is a move geared towards achieving business prosperity owing to the ever-changing nature of the market. Human Resources is one of the sectors in which data-based decision-making has gained popularity given its ability to enhance the process of acquiring and retaining employees. With the kind of competition experienced in the Big Data and Data Science sectors, a company needs to be careful in selecting the most appropriate candidate. This paper is set to explore HR analytics and BI about Big Data and Data science-based companies' recruitment for the company named **Bangla Puzzle Limited**.

A group of highly skilled professionals with experience in a variety of platforms, Bangla Puzzle Limited is a promising and innovation-focused business that provides onsite and offshore services for developing software, web and mobile application development, artificial intelligence, augmented and virtual reality software, and Internet of Things services. The company has previously completed numerous jobs in these fields. In Bangladesh, Bangla Puzzle Limited is a legally recognized private corporation. Although Bangla Puzzle Limited is new, its experience is excellent. The National Mobile Application Award from the ICT Ministry (2017), the Champion of the Women Innovation Camp (2018), the Innovator of IT Incubator (2019), the Prime Minister's Project Inauguration (2020), and the App of the Day by Design Nominees in the USA are just a few accomplishments. Nadim Majid is the founder of this business. (*TOP 10 IT Company in Bangladesh*, n.d.)

This report has been designed to solve the recruitment process of a company to select the employers, who reveal a strong concern with remaining within the organization following successful training. There is a huge number of people joining training programs in the company, so it is essential to spot individuals willing to engage in the long run. The HR experts can make the selection process easier, reduce attrition dangers, and manage resources better by studying information from data analytics. BI, data analytics, and HRM are the theoretical bases for this project. This document explains why it is important to predict HR decisions using established

theories and frames. The study mixes ideas from employee turnover research and predictive modeling. This makes a strong base for the analysis work. The core of the analysis uses a big data set. It has details about people's ages, schooling, jobs, and what they want in jobs. The report looks at the data very carefully. It aims to find patterns, trends, and links that show why people change jobs. With this knowledge, HR workers can get better at hiring people, keeping them, and helping them grow. They can make smarter plans. As companies work to find good people for jobs, using data is very important. Using BI and HR data helps companies see who the best people are for jobs. Looking at the data helps companies grow by finding good people. This report shows how using data can help companies find good people for jobs and grow.

Bangla Puzzle Ltd, an innovative technology company that specializes in AR, VR, AI, and software development, has a big challenge in finding candidates who are truly committed to the organization after training. This section examines the theoretical framework that emphasizes the importance of using business intelligence (BI) and data analytics (DA) techniques to effectively address this challenge.

## **Link to the Theoretical frameworks and problem/opportunity of the case organization**

The application of BI and DA methods to the candidate selection process is consistent with the principles underpinning organizational practices and human resource management. At this point, it will be beneficial to take into account the particular function that quantitative techniques play in the larger framework of commercial decision-making (Wisniewski, 2). Traditional HR practices often rely on psychoanalysis and emotion, leading to suboptimal results. However, adopting data-driven approaches can improve the accuracy and efficiency of talent acquisition efforts by organizations like Bangla Puzzle Limited. Strategic Human Resource Management (SHRM) concepts emphasize aligning human useful resource practices with organizational goals to achieve competitive benefit. Using BI and DA strategies, HR professionals can examine huge quantities of facts together with candidate demographics, training, enjoyment, and career aspirations. Predictive modeling strategies permit you to perceive the maximum possible candidates with business enterprise values that align with lengthy-time period objectives, thereby providing higher recruitment and retention strategies. Besides, measures of worker turnover and activity pride provide the perception of the factors that affect candidates' choices to are seeking for new employment possibilities. BI and DA strategies facilitate the identity of the underlying causes of turnover, enabling proactive interventions to enhance retention quotes. By knowledge

of applicants' underlying motivations and choices, Bangla Puzzle Limited can tailor its HR strategies to provide extra engaged and devoted personnel. In addition, the useful resource-primarily based view (RBV) principle indicates that a company's aggressive benefit is based totally on its precise assets and competencies. With the consideration of Bangla Puzzle Limited, enforcing BI and DA strategies to recruit top talent is vital for a company. With investments in information analytics abilities and developing predictive fashions, a company can select the fine applicants and differentiate all inside the market.

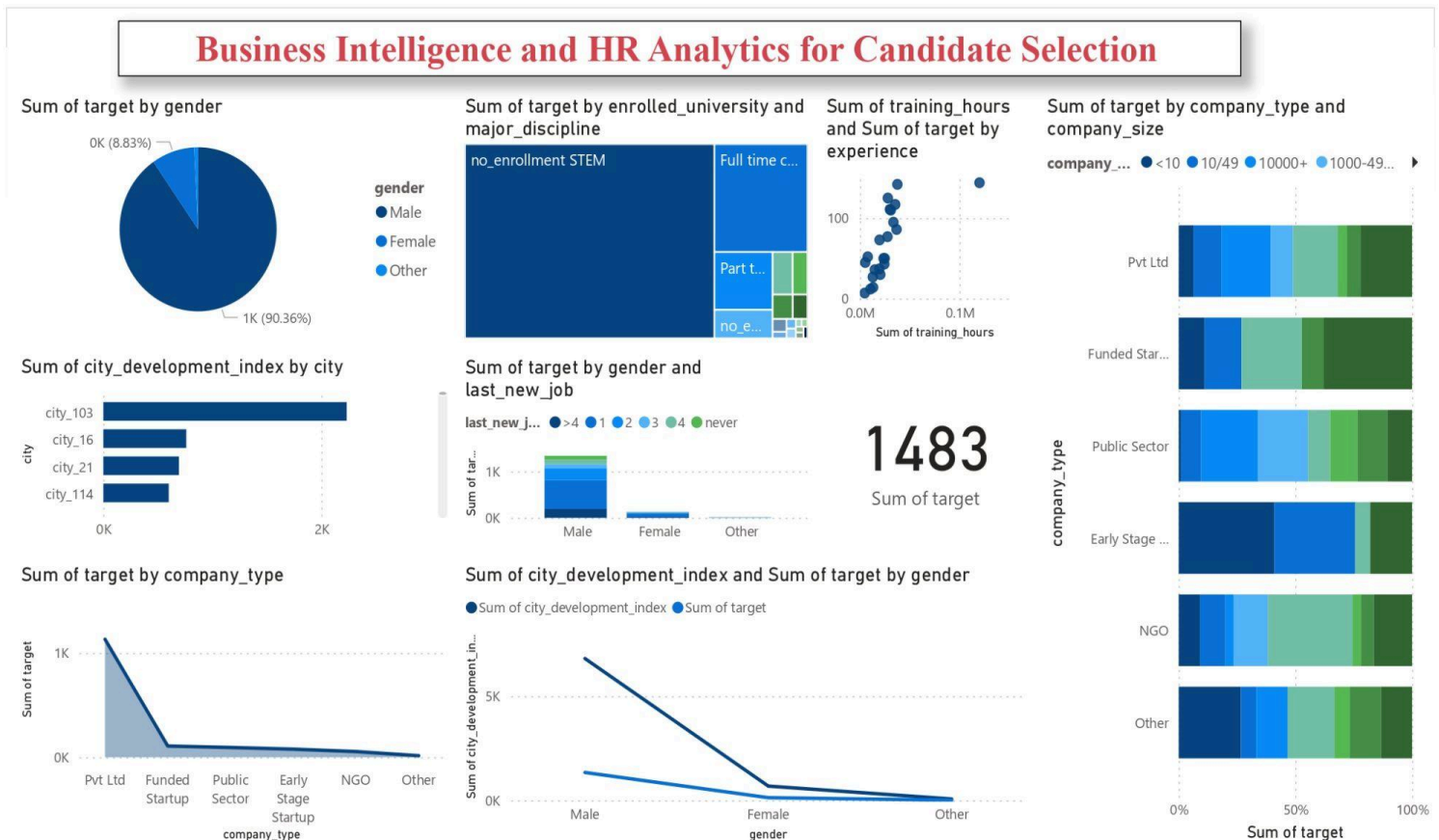
### **Methodology**

Road Bangla Puzzle Ltd. Uses a statistics-pushed technique for candidate selection and retention. By the usage of gadgets gaining knowledge of algorithms and predictive analytics, an organization can create models that predict the probability of applicants searching out a new process after training. This process starts with extensive data preprocessing, which includes dealing with lacking values, encoding express variables, and coping with elegance imbalances. The dataset(Kaggle, n.d.), including attributes consisting of candidate demographics, training, training hours, and so on., is divided into education and testing classes The goal variable suggests whether a candidate is searching out a career alternate (1) or now not (zero). In addition, the expectation idea of motivation indicates that people are motivated to behave in approaches that maximize perceived rewards and decrease perceived expenses. By correctly predicting the probability of candidates staying with the business enterprise, Bangla Puzzle Limited can tailor its incentive and retention strategies to personnel's expectancies and motivations.

### **Theory of International Business**

Although not at once relevant to the difficulty of chief choice, global marketing, and advertising theories offer insights into broader organizational approaches and assumptions. As Bangla Puzzle Ltd is running in a worldwide environment, know-how international business corporation ideas can tell selections concerning know-how acquisition, marketplace expansion, and circulate-border operations Using BI and DA techniques, the enterprise can advantage insights into international expertise trends and adapt its HR techniques. Last but no longer least, the strategic concatenation of BI and DA strategies in the employee recruitment device gives Bangla Puzzle Limited an aggressive component within the dynamic era region. By leveraging theories of organizational behavior, human resource control, and motivation, the agency can extend predictive fashions to become aware of and maintain pinnacle skills, as a result of the use of sustainable increase and success inside the worldwide of all markets.

# Dashboard



## Critical analysis and justification of dashboard solution

Developing a comprehensive dashboard solution to address the challenge of candidate selection and retention at Bangla Puzzle Limited is an important step in applying data-driven insights for HR strategy as they are used positively. Both public and commercial organizations are under pressure to adapt swiftly to changing circumstances and to run their businesses creatively. Taking into account the examination of pertinent data, knowledge, and information. To make the necessary judgments, these must be processed swiftly, often in real-time, and typically with the

assistance of computers (Sharda et al., #). A performance dashboard is a full-fledged business information system that is built on a business intelligence and data-integration infrastructure. It has been one of the most effective research topics (“Performance Dashboards Measuring, Monitoring, and Managing Your Business, #). This section critically analyzes and justifies the dashboard solution, focusing on its effectiveness in addressing the problem/opportunity situation facing the organization.

## **Dashboard design and representation**

The dashboard is optimized to provide a comprehensive view of key metrics and trends related to candidate behavior and factors influencing career transition decisions. With beautiful visual charts, graphs, and tables, the dashboard provides HR professionals with an easy-to-use interface for HR professionals to explore and interpret data points. Communication features included for the functionality are great, allowing users to edit visualizations, drill down to specific data subsets, and extract actionable insights.

### **Gender and Major Discipline Analysis**

One of the fundamental components of the dashboard is the evaluation of candidate conduct by way of gender and important discipline. By visualizing the sum of the goal variable (indicating applicants seeking out a task alternate) throughout one-of-a-kind genders and disciplines, HR experts can perceive any gender or field-unique tendencies in process trade behavior. This evaluation permits the company to tailor its recruitment and retention strategies to deal with ability disparities and capitalize on demographic strengths.

### **Experience and Last New Job Analysis**

Understanding the impact of candidates' enjoy ranges and duration considering that their final job alternate is critical for predicting future task alternate behavior. The dashboard offers visualizations depicting the sum of the target variable through enjoying and remaining new task length. By studying these developments, HR specialists can identify styles and increase focused interventions to maintain applicants with precious experience and decrease turnover.

### **City Development Index Analysis**

The metropolis development index plays a substantial role in shaping candidates' profession choices, mainly regarding task possibilities and excellent lifestyles. The dashboard consists of visualizations depicting the sum of the goal variable by metropolis and metropolis improvement index, allowing HR specialists to evaluate the attractiveness of various towns to applicants. This

analysis informs decisions concerning recruitment techniques, geographic enlargement plans, and the allocation of assets to unique areas.

### **Company Type and Size Analysis**

Early methods of business analysis improved current company systems through a methodical procedure (Cadle et al., #). Another critical aspect of the dashboard is the analysis of candidate conduct by corporation type and size. By visualizing the sum of the goal variable across different types and sizes of organizations, HR specialists can gain insights into how applicants' job trade conduct varies based totally on their modern employers' traits. This analysis informs focused retention efforts and facilitates the organization to tailor its HR strategies to deal with the precise needs and preferences of candidates in distinctive organizational contexts.

### **Justification of Dashboard Solution**

The dashboard answer offers numerous key advantages in addressing the difficult/possible situation confronted by Bangla Puzzle Limited:

- **Data-Driven Decision Making:** By consolidating relevant metrics and visualizations in a single interface, the dashboard empowers HR experts to make informed choices based totally on facts-driven insights in preference to instinct or anecdotal evidence. This technique enhances decision-making effectiveness and minimizes the risk of bias.
- **Analytic of predictivity:** Predictive analytics includes the talents that let HR specialists assume candidates' future decision alternate behavior, allowing for proactive retention strategies and useful resource allocation. By identifying at-threat candidates early, the enterprise can intervene effectively to mitigate turnover and hold top abilities.
- **Designing the interactive features:** The interactive representation of the dashboard offers, the scope to design represent, learn file subsets, and extract vital insights related to the target action. This design enhances use cases and ensures that HR experts can derive the maximum support from the dashboard solution.
- **Real-Time Monitoring:** The dashboard allows real-time tracking of key HR metrics, allowing nicely-timed interventions and modifications to recruitment and retention techniques primarily based mostly on evolving traits and styles. This proactive method of HR manipulation enhances the company's agility and responsiveness to changing market dynamics.

- **Strategical synchronization:** By synchronizing the HR targets with the property of the employer and market conditions, the result found from the dashboard supports the company Bangla Puzzle Limited to decorate focused strategies that highlight defendable rise and competitive achievements. By introducing data-driven insights, the corporation organization can organize facts resources, holding, and ways of improvement to generate its prolonged-term strategic desires efficiently.

In conclusion, the dashboard solution represents a precious tool for Bangla Puzzle Limited in addressing the venture of candidate selection and retention. By providing actionable insights into candidate conduct and influencing factors, the dashboard empowers HR experts to optimize recruitment strategies, decorate employee engagement, and force organizational fulfillment. Continued refinement and utilization of the dashboard answer might be instrumental in maximizing its impact and ensuring sustained competitive gain for the corporation.

## Conclusion

To conclude, the implementation of a business intelligence (BI) and analytics device holds a gigantic ability for Bangla Puzzle Limited in addressing the challenges associated with candidate choice and retention. By presenting actionable insights into candidate behavior and influencing factors, the dashboard empowers HR experts to optimize recruitment techniques, beautify employee engagement, and force organizational achievement. Continued refinement and usage of the dashboard solution might be instrumental in maximizing its effect and ensuring sustained aggressive advantage for the business enterprise.

## Recommendations for the implementation of the BI/analytics machine in Bangla Puzzle Limited:

**Data Quality and Governance:** Ensure the satisfaction and integrity of information with the aid of implementing strong data governance practices. Establish records standards, validation strategies, and statistics management protocols to keep facts accurate and reliable.

**Continuous Monitoring and Evaluation:** Regularly screen key HR metrics and performance signs to music the effectiveness of recruitment and retention techniques. Conduct periodic opinions to discover areas for development and refine the dashboard solution accordingly.

Investment in Training and Skill Development: Provide schooling and upskilling possibilities for HR professionals to beautify their scalability in data evaluation and interpretation. Foster a statistics-pushed way of life inside the corporation via selling using analytics tools and techniques in selection-making approaches.

- **Integration with HR Processes:** Integrate the BI/analytics gadget with current HR approaches and workflows to streamline facts collection, analysis, and decision-making. Ensure seamless integration with recruitment, onboarding, overall performance management, and talent development tasks.
- **Stakeholder Engagement and Communication:** Foster collaboration and communication amongst key stakeholders, which includes HR experts, senior management, and IT employees. Solicit feedback and enter from stop-customers to ensure the dashboard answer meets their wishes and addresses unique business challenges efficaciously.

By adhering to these hints and embracing a strategic technique for the implementation of the BI/analytics device, Bangla Puzzle Limited can unencumber the overall capacity of records-driven HR control. By leveraging superior analytics strategies and predictive modeling talents, the company can optimize candidate selection processes, beautify worker engagement and retention, and in the end drive organizational success within the dynamic and competitive tech industry landscape.

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