How to Make Indians Happy? Using Explainable AI to Identify Happiness Indicators

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Abstract. India, the world's fastest-growing major economy, remains a bright spot amid global recession concerns. However, despite its economic success, the country faces challenges in enhancing the happiness of its over 1.4 billion citizens, ranking a low 126th out of 146 nations in the recent World Happiness Report (WHR). Although the central and state governments have introduced various happiness measurement and promotion schemes, achieving significant improvement in WHR rankings remains elusive. The WHR data offers valuable insights for policymakers to understand the factors affecting happiness, its cross-cultural differences, and impact on productivity. Governments and organizations can use such insights to develop both global and localized strategies to improve citizen well-being and improve productivity. This case examines how explainable AI (XAI) and machine learning (ML) can be leveraged to identify key happiness indicators and integrate it with organizational behaviour principles to leverage employee performance. Students are tasked with analysing global and local drivers of happiness and developing predictive models using AI and ML tools.

Keywords: subjective well-being, organization behaviour, machine learning, explainable AI (XAI), support vector machine, random forest, gradient boosting regressor, decision tree, multiple perceptron neural network.

1. Introduction

Evaluating economies based on consumption-driven growth, commonly reflected in GDP numbers, is fast becoming untenable as governments globally realize that increasing consumption levels are not socially, economically, and environmentally sustainable. The topic of "well-being" has gained immense interest among policymakers as it is increasingly realized that materialistic orientation has no bearing on human well-being and Happiness. There are suggestions to include subjective well-being (SWB) as a meaningful indicator of social progress along with existing macroeconomic indicators to assess the quality

of life in a nation (Stiglitz *et al.* 2009; Van Praag *et al.* 2003). The Indian government has been rattled by its low performance on the "global happiness index", where it has fared a low 126 among 146 participating nations – this even though the country has done well in the economic indicators and has steadily climbed to fifth position in GDP globally (ET Online 2023). Though the central and some of the Indian state governments had introduced happiness programs to measure and improve Happiness as a critical social indicator, there was a long way to go (ANI 2022; Elets 2016; G Plus 2023).

Ms. Khushi, a newly appointed intern at the prestigious Policy Research Institute (PRI), was entrusted with a pivotal task: developing a comprehensive white paper to provide critical insights for policymakers on the subject of national happiness. Her research delved into the intricacies of the World Happiness Report (WHR), which uses the Gallup World Poll (GWP) to measure subjective well-being (SWB). At the core of this measurement is the Cantril Life Ladder, a tool designed to assess key determinants of happiness. These determinants are multifaceted and include factors such as GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and perceptions of corruption. Together, these elements form a nuanced framework that allows governments to gauge economic progress and the broader well-being of their citizens. Khushi's research underscored the importance of understanding these variables to devise effective, happiness-centered policies that transcend traditional economic metrics.

2. The Role of Organizational Behaviour in Happiness Initiatives

However, as Khushi's mentor highlighted, the success of national happiness programs depends on far more than just data analysis and algorithmic accuracy. The implementation of such initiatives requires a deep understanding of organizational behaviour (OB) within the institutions responsible for these programs. Organizational behaviour encompasses the study of how an organization's individuals, groups, and structures influence its effectiveness and the achievement of its goals (Kumar *et al.* 2022). In the context of happiness initiatives, the alignment of organizational behaviour with the overarching objectives of well-being is critical (Ungureanu *et al.* 2019). Thus, understanding and optimizing OB plays a crucial role in ensuring that the technical insights derived from AI and data models are effectively translated into real-world policy interventions. According to her mentor, two OB concepts align closely with SWB – culture and productivity. Culture is a set of shared values, norms, beliefs, customs, and rituals and has been shown to have a significant impact happiness of its members (Uchida *et al.* 2004; Maheshkar & Chandan 2018). Members of certain cultures are predisposed to higher levels of happiness irrespective of their material existence (Diener & Lucas 2000). The second impact of culture is on