Introduction after adding citation:

Building and maintaining a stable, productive, collaborative, and high-quality workforce is a primary concern for the majority of managing principals as success in this area tends to be a key factor contributing the overall firm prosperity [8]. Inevitably, all firms will experience employee attrition. Involuntary attrition is often the result of profitability and performance pressures, department or business line obsolescence, and mergers and acquisitions, among other factors [3]. In contrast, voluntary attrition is driven predominately by employee concerns [6]. Such considerations may be focused around, but not limited to, managerial direction, compensation and benefits, firm culture, firm desirability and location, promotion potential as well as non-firm specific motivations, e.g. medical conditions or retirement.

A central objective of the majority of human resource departments is to understand the root causes behind voluntary employee attrition and develop an associated mitigation strategy. Effectively navigating such issues generally resulted in explicit positive monetary effects stemming from increased firm revenue and cost reductions manifested through the work retained highly performant employees [7]. In addition, identifying and resolving issues found to be common to employee attrition often implicitly enhances firm culture and workplace desirably which in turn enables the recruitment of higher quality staff which further improve retention, firm operation, and business practices. We feel that the compounding effect nature of this employee attrition feedback loop on the overall success or failure of the firm is the essential motive for conducting a thorough investigation into this matter.

Traditionally, employee attrition and retention issues tend to examined through qualitative and anecdotal measures. Specifically, human resources staff tend to conduct exit interviews after an employee provides a resignation notice in order to ascertain the motivations behind the decision to leave. Although these conversations may be direct and candid, i.e. in the event an employee is leaving for a significantly more senior role or needs to change geographic location for family reasons, in actuality, human resources staff encounter considerable difficulty discerning the employee's actual rationale. By way of example, employees seldom offer negative criticism of management during exit interviews for fear of future personal retribution or inadvertent retaliation towards their close colleagues who will still remain at the firm. These circumstances impact the employee attrition data aggregation and quality assurance process by making it cumbersome, at a minimum, which leads to additional difficulties determining which attrition issues should be of primary importance for management to resolve. In addition, employee attrition data is typically high confidential and only accessible to key stakeholders internally within a firm. This fact has been a major impediment for the progression of academic research on this topic [10].

Recently, internet based platforms such as GlassDoor and LinkedIn oriented towards working professionals have amassed large quantities of publicly available information related to individual employee resumes including employment history, frank reviews of firm culture, desirability, and management as well as anonymous feedback. Although this data often lacks attritional motivation information at the individual employee level, when combined with aggregate firm culture and management rankings, one may glean a number of insights into the collective behavior and motivations behind individual decisions to transition to a new employer. Our major aim is precisely in this vein. More specifically, we conduct a quantitative data analysis of employee attrition motivations as well as develop predictive models that will enable human resources staff identify employees whose firm separation may be imminent. We extend the work of [1] who examine employee

attrition and retention issues based upon a collection of approximately five thousand anonymously submitted resumes to Glassdoor. We provide SUMMARY OF DATA ANLAYSIS EXTENSIONS. In addition, SUMMARY OF NEW MODELS. Lastly, we delineate future data acquisition, analysis and model development extensions that we seek to investigate in future work.

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