

R as a statistical tool for human factor engineering

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In the last decades global market has evolved toward a new dimension by creating an environment where different countries , attitudes , cultures and work organization coexist together. Companies are so exposed to a new management challenge to keep high business performances.

In this scenario Human Resources Management has become more than ever a key factor to build company's success. Tasks as: find and leverage talents, promote a culture of excellence by encouraging outstanding achievements, assemble a collective knowledge by sharing experience for common good, reduce employee turnovers are, among others, crucial to ensure company's survival.

Considering that in some cases Universities have not been providing with enough graduates, offset the gap in those sectors with skills shortage is a competitive investment in corporate branding.

As reported by a recent research at *Yale School of Management* in 2009: *"Those who graduate in bad economies may suffer from underemployment and are more likely to experience job mismatching since they have fewer jobs from which to choose. The disadvantage might be eliminated if workers can easily shift into jobs and career paths."*

An analytical approach can be used to create a functional relation between the HR function and enterprise risk management process. This allows to quantify and mitigate the possible risks related with human capital that can affect company's business performances.

Time series models (ARIMA, moving average) and multivariate analysis techniques (ANOVA, Generalised linear models) are indeed used as a support for both HR managers and risk managers.

Statistical methods and tools widely used for Business Intelligence and financial risk management may promote a new corporate culture more focused on Sense of Accomplishment and networks building than compliance to static and outdated behavioural models.

The tutorial scope is to show how a valuable tool as **R-Adamant** can be a powerful ally for researchers and university students as well as for companies.

References

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