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# Performance Analysis of Professional Higher Education Programmes Driven by Students Perception: A Latent Variable Computation Model for Industry 5.0

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**Abstract.** Complexity is prevalent in contemporary culture. In the not-too-distant future, as Industry 5.0 takes hold, people will encounter higher difficulties in accomplishing jobs. To produce more precise, user-friendly, and resource-efficient solutions, human inventiveness and intelligent machines will astonishingly converge here. This transition envisages meeting both production goals of industries while also keeping the planet's biodiversity in good shape. Key aspects of Industry 5.0, like the creation of new types of jobs, the need for new types of skills, and the rapid development of technology, are getting far too complicated. The digital revolution can help developing these skills in students. This paper investigates the extent to which such primary proficiency parameters (e.g. motivational, intellectual, social and emotional, with one/more sub-parameters in each area) are perceived to have evolved in preparation for work in the Industry 5.0 era using data collected from 198 students. The raw data are subjected to a battery of one-sample normality tests. Then the main components are extracted, and the factor loadings are analyzed in order to determine how students in these programs value various parts of their education. The findings are summarized in accordance with the conceptual framework and overall conclusions of the study.

**Keywords:** Industry 5.0 · latent variable extraction · performance analysis · professional education

## 1 Introduction

The average person in the modern world has a difficult time figuring out how to get around in a very complicated world. Every day, new problems emerge, and when Industry 5.0 is fully operational in the not-too-distant future, people will face an even broader range