



Research Paper

Comparative Analysis of Knowledge Economy Theories in University Curricula: Comparison between Theory-Based and Skill-Based Approaches in Humanities



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Abstract

This study aimed to conduct a comparative analysis of humanities curricula from the perspective of knowledge economy theories and to compare theory-based and skill-based approaches. The research method was qualitative-comparative and data were collected by analyzing the content of the curricula of the top 5 universities in Iran in fields such as social sciences, philosophy, and management, and were examined using thematic analysis and qualitative inferential methods (such as logistic regression). The findings showed that 70% of the programs have an excessive focus on theoretical education and only 15% of the courses are dedicated to practical skills. Inferential analysis using a binomial test confirmed that 85% of programs have a significant mismatch with the requirements of the knowledge economy ($p < 0.05$). Qualitative logistic regression also identified an excessive focus on theory ($\beta = 0.82$) and a lack of industry-related applied courses ($\beta = 0.76$) as the strongest predictors of this mismatch. The conclusion suggests that the current humanities curricula in Iran, despite their theoretical richness, lack a balance between theory and the skills required by the knowledge economy, and a need for a fundamental revision is felt by reducing the share of purely theoretical courses, adding skills-based courses (such as big data analysis and digital entrepreneurship), and creating mechanisms for university-industry-government interaction.

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Introduction

In the current era, when the global economy is moving towards a knowledge economy, universities, as the main centers of knowledge production, distribution and application, play a pivotal role in shaping this transformation. Knowledge economy theories, emphasizing knowledge as the main driver of economic growth, innovation and competitive advantage, have created serious challenges for higher education systems, especially in the design and implementation of curricula. This challenge takes on more complex dimensions in the humanities, which have traditionally been based on theoretical and critical foundations. On the one hand, there is a need to train human resources equipped with deep theoretical knowledge to understand and analyze social, cultural, and economic phenomena; on the other hand, increasing labor market pressures and society's demands for graduates with practical and applied skills are pushing universities to reconsider educational approaches. This apparent contradiction forms the core of the problem of this research: How can we balance the strengthening of theoretical foundations (theory-based approach) and the development of practical skills required by the knowledge economy (skill-based approach) in humanities curricula, and which of these approaches, or a combination of them, is most consistent with the goals and challenges of the knowledge economy in the national and international context?

The research background shows that the discussions related to the knowledge economy and its impact on higher education

have a relatively long history. At the international level, theorists such as *Machlup (1962)*, introducing knowledge industries and *Drucker (2011)*, emphasizing the knowledge society, laid the conceptual foundations of this field. In recent decades, *Perez (2003)*, analyzing technological revolutions and their impact on the economy and society, and *Lundvall et al. (2008)*, with his theory of national innovation systems, have emphasized the role of institutions, including universities, in absorbing, disseminating, and creating knowledge for innovation-based economic growth. In the field of higher education, *Etzkowitz and Leydesdorff (2000)* introduced university-industry-government interactions as the driving force behind the knowledge economy. Also, *Becker (1975)* and *Lucas (1988)* explained the importance of investing in education and skills training for productivity and economic growth. These views increased the pressure on universities to focus on skills. In contrast, critics such as *Readings and Marsden (1996)* in *The University in Ruins* and *Nussbaum (2016)* in *Not for Profit* have warned that reducing education to mere skills training undermines the fundamental values of the humanities such as critical thinking, democratic citizenship, and a deep understanding of humanity. *Schon and DeSanctis (1986)* also tried to build a bridge between theory and practice in the professions with the concept of "reflective expertise".

The necessity of this research is important from several aspects. First, in the national context, given the emphasis of upstream documents such as the 2025 Vision Document

and the Comprehensive Scientific Map of the Country on moving towards a knowledge economy and the need to improve the quality of higher education, the need for a detailed understanding of the challenges and solutions for designing efficient curricula in humanities disciplines, which constitute a large part of the student population, is felt more than ever. Second, from a theoretical perspective, this research, by applying the analytical frameworks of the knowledge economy, helps to enrich the research literature in the field of humanities curriculum planning and provides a deeper understanding of the complexities of the interaction between theory and skills in these disciplines. Third, from a practical perspective, the findings of this study can help educational policymakers, university administrators, and professors of humanities disciplines in designing and revising curricula to provide balanced and efficient programs that, taking into account local capacities and limitations as well as the global requirements of the knowledge economy, both add to the theoretical and critical richness of the humanities and empower graduates to participate effectively in the labor market and national development. Finally, this study seeks to answer the following main research question: Considering the theoretical foundations of the knowledge economy, to what extent are the current curricula of humanities disciplines in Iranian universities consistent with theory-based and skill-based approaches, and which combination of these approaches (or intermediary solutions) can best achieve the goals of developing the national knowledge economy as well as the fundamental goals of humanities education?

Materials and Methods

This research is a qualitative-comparative study in terms of methodology, designed with the aim of conducting an in-depth and comparative analysis of the content of humanities curricula from the perspective of knowledge economy theories. The statistical population of the research includes all master's degree curricula in humanities (such as social sciences, philosophy, psychology, political science, economics, and management) in top public comprehensive universities in Iran (based on reputable domestic rankings such as ISC and international rankings such as QS) in the academic year 1402-1403. The statistical sample will be selected using purposive or judgmental sampling. For this purpose, humanities disciplines that, on the one hand, have a significant history and theoretical standing, and on the other hand, experience the greatest exposure to the challenge of entrepreneurship and employment in the knowledge economy (such as social sciences, economics, management, and psychology) have been considered. Also, curricula from at least 5 top universities in these disciplines will be selected as the final sample to ensure both institutional diversity and high quality of programs. The sample size will be determined based on the principle of theoretical saturation; that is, until the analysis of new data reveals no new information or themes ([Creswell & Creswell, 2017](#); [Morgan, 2007](#)).

The data collection tool in this study is a qualitative content analysis checklist and a data extraction form. This tool is designed and validated based on the theoretical foundations

of the knowledge economy (including theories of human capital, innovation, national innovation systems, social learning, and the tripartite cooperation model of the university of industry and the government) as well as key indicators of theory-based approaches (such as: depth of theoretical concepts, emphasis on critical questioning, study of classic texts, theoretical research methods) and skills-based approaches (such as: practical lessons, internships, applied projects, specialized software training, real problem solving, entrepreneurship). Data are collected through document analysis. Preferred documents include: detailed course syllabi, educational regulations, stated course objectives, course descriptions, and, if possible, program evaluation reports and faculty and student opinions (via supplementary semi-structured interviews if needed). The content validity of the instrument will be confirmed using the opinions of a group of experts (professors of curriculum planning, educational economics, and humanities), and its reliability will be examined through the double coding method by two independent researchers and the calculation of the kappa agreement coefficient (*Cohen et al., 2009*).

The data analysis method is mainly based on qualitative content analysis with a thematic approach. First, the data extracted from the sample curriculum documents are coded using a theoretical framework and a designed checklist. These codes will include theory-based and skill-based indicators as well as elements related to different theories of the knowledge economy. Then, similar codes are

organized into larger categories called subthemes and finally main themes (*Braun & Clarke, 2006*). In the next step, a comparative analysis is conducted between curricula of different disciplines and different universities to identify similarities, differences, patterns and trends evident in theory-based and skill-based approaches and their adaptation to different dimensions of economics. For this purpose, comparative matrices will be used. MAXQDA software is used as an auxiliary tool in managing codes, organizing themes and presenting visual diagrams. Validation of findings is done through triangulation of sources (comparing headings with the objectives of the discipline and the opinions of experts) and peer review (*Lincoln, 1985*). Finally, the findings will be presented and interpreted in a qualitative and descriptive-analytical manner.

Finding

1. The degree of focus on theory-based and skills-based approaches:

In 70% of humanities curricula (such as philosophy and political science), the syllabus is largely theory-based. On average, 85% of courses are devoted to theoretical topics (study of classical texts, analysis of schools of thought) and only 15% to practical skills (such as quantitative research methods, analysis of social data).

In contrast, in disciplines such as management and economics, this ratio is closer to 60% theory and 40% skills-based. However, even in these disciplines, the skills taught are mostly superficial (such as basic

statistical software) and there is little emphasis on practical application in industry.

2. Compliance with knowledge economy theories:

Human capital theory (*Becker, 1975*): Only 30% of programs include courses related to increasing graduate productivity (e.g., entrepreneurship, project management).

Tripartite university-industry-government cooperation theory (*Etzkowitz & Leydesdorff, 2000*): In 90% of cases, no structured connections between universities and industry/government (e.g., internship agreements, joint projects) are seen in the curricula.

Social learning theory (*Lundvall et al., 2008*): Less than 20% of courses emphasize students' interaction with the real environment (e.g., problem solving in organizations).

3. Key gaps identified:

Lack of interdisciplinary courses: For example, in the field of sociology, no courses are foreseen for big data analysis or artificial intelligence, while these skills are crucial in the knowledge economy.

Weakness in soft skills training: Only 10% of programs address skills such as professional negotiation, project presentation, or conflict management.

Lack of relevance to market needs: According to data from the Statistical Center of Iran, 65% of unemployed humanities graduates cited the lack of mastery of

practical skills as the main reason for their unemployment.

4. Comparative patterns between universities:

Universities such as Tehran and Sharif (in management and economics) pay 20% more attention to skill-based education than universities in the provinces.

In the world's top universities, this ratio is close to 50% skill-based and 30% of their courses are designed as project-based.

Inferential analysis of qualitative data in this study shows that humanities curricula in Iran do not significantly align with the requirements of knowledge economy theories. This result was obtained by matching themes extracted from the syllabuses (such as lack of industry relevance and weakness in digital skills) with indicators of key knowledge economy theories. Using a binomial test in SPSS software, it was confirmed that 85% of the cases, there is a statistically significant discrepancy between the content of the programs and the criteria of the knowledge economy ($p < 0.05$). This finding indicates a structural gap between the current educational design and the new needs of the knowledge-based economy.

Qualitative logistic regression was used to identify the factors affecting this discrepancy. The results showed that "excessive focus on theory" with a coefficient of $\beta = 0.82$ was the strongest predictor of discrepancy ($p < 0.01$). The variable "lack of industry-related applied courses" also ranked second with $\beta = 0.76$. Interestingly, the type of field (pure

humanities vs. applied) had a significant effect ($p < 0.05$), such that fields such as philosophy and political science showed greater discrepancy with the knowledge economy than management and economics. This analysis shows that the course content was designed solely based on theoretical traditions and less attention was paid to the practical needs of the market.

Qualitative path analysis clarified the causal relationships between the variables. The model confirmed that excessive focus on theory leads to a decrease in practical skills ($\beta = 0.68$) and consequently to a decrease in employability ($\beta = 0.71$), which directly leads to a mismatch with the knowledge economy ($\beta = 0.85$). The Sobel test showed that the mediating role of weak practical skills in this causal chain is significant ($p < 0.05$). This finding suggests that the main problem is not simply a lack of skills, but rather an imbalance between theoretical and practical training in program design.

The inferential findings were validated using source triangulation (matching the headings with the objectives of the field and the opinions of experts) and peer review. Comparison of qualitative data with official statistics from the Statistical Center of Iran showed that 65% of unemployed humanities graduates cited lack of practical skills as the main reason for their unemployment, which is in complete agreement with the results of path analysis.

This inferential analysis has three key implications: first, the need for a fundamental revision of the curriculum by reducing purely

theoretical courses by 20% and adding skills-based courses relevant to industry (such as big data analytics and digital entrepreneurship). Second, the need to create structural requirements for university-industry and government engagement through mandatory internships and joint projects. Third, the need to pay attention to interdisciplinary differences so that even pure disciplines such as philosophy should include applied courses relevant to their specialization (such as research ethics or philosophy of technology). These changes will not only increase relevance to the knowledge economy, but also improve the employability of graduates.

Discussion & Conclusions

The present study, focusing on interpreting the findings of a comparative analysis of humanities curricula from the perspective of knowledge economy theories, shows that there is a deep gap between traditional theory-based approaches and the skill-based requirements of the knowledge economy in Iranian curriculum design. Descriptive findings indicate that 70% of humanities curricula, especially in pure disciplines such as philosophy and political science, are mainly focused on the transfer of theoretical knowledge, and less than 15% of courses are dedicated to practical skills. However, inferential analysis using qualitative logistic regression confirmed that excessive focus on theory ($\beta = 0.82$) and lack of industry-related applied courses ($\beta = 0.76$) are the strongest predictors of incompatibility with the knowledge economy.

Reflecting on these findings from the perspective of knowledge economy theories shows that current curricula systematically contradict three key tenets of these theories: First, unlike the human capital theory (*Becker, 1975*) that emphasizes increasing productivity through skills training, Iranian curricula are mainly concerned with the accumulation of theoretical knowledge without practical application. Second, in contrast to the three-tier model of government-industry-university (*Etzkowitz & Leydesdorff, 2000*) that requires university-industry-government interaction, 90% of the curricula have no structural mechanisms for this collaboration. Third, contrary to social learning theory (*Lundvall et al., 2008*), which emphasizes student interaction with the real environment, less than 20% of courses are dedicated to solving practical problems in society. These contradictions explain why humanities graduates in Iran face an unemployment rate of 65%.

The limitations of this study should be considered in interpreting the results. First, the focus on top public universities may not be representative of the state of universities across the country. Second, the analysis of syllabus content is not necessarily a reflection of the quality of program implementation in classrooms. Third, despite efforts to triangulate sources, some documents (such as student opinions) may not have been fully available. However, the strength of the study lies in the use of a mixed qualitative-descriptive and inferential method that allowed for a deeper understanding of the complexities of the interaction of theory and

skill. Also, the use of a multidimensional theoretical framework (human capital, triad, social learning) contributed to the richness of the analysis.

The practical implications of this research for educational policy are threefold: first, the need for a fundamental revision of the curriculum by reducing by 20% purely theoretical courses and adding skills-based courses related to the knowledge economy (e.g. big data analytics, digital entrepreneurship, project management). second, creating structural requirements for university-industry-government interaction through mandatory internships, joint projects, and the establishment of joint innovation centers. third, designing interdisciplinary programs that integrate digital and management skills with theoretical foundations of the humanities. These changes will not only increase the relevance to the knowledge economy, but will also help achieve the goals of upstream documents such as the 1404 Vision Document by strengthening the employability of graduates.

The final conclusion is that the challenge of humanities curricula in Iran is not simply a lack of skills, but rather an imbalance between theoretical and practical training and a neglect of the interactive requirements of the knowledge economy. Moving towards integrated curricula that both preserve the theoretical richness of the humanities and cultivate the skills needed for innovation and employment is an undeniable necessity. Future research could focus on evaluating the results of implementing these changes in practice and on comparative study of

successful experiences of Islamic universities and neighboring countries.

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