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Additional Skills Acquisition Programme (ASAP) Project:
The case of an employability enhancement initiative in India

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Abstract

Purpose

The aim of this paper is to explore an employability enhancement initiative, the Additional Skills Acquisition Programme (ASAP) project in the state of Kerala in India, as a case for the inclusive development of employability in college and university students.

Design/methodology/approach

ASAP is applied as a case study to examine the employability enhancement initiative in India.

Findings

Participation in the ASAP project led to increased measures of employability. These increases were most pronounced in women and individuals living below the poverty line. Partnerships between educational institutions and organisations focusing on students' technical and skill development can help overcome local and national talent shortages.

Originality

The theoretical implications come from addressing the lack of representation of skills-based employability initiatives among students from India in the vocational behaviour literature. Practical implications come from knowledge sharing of innovative strategies to enhance the employability outcomes of individuals entering the labour market. Specifically, new ways to overcome the reported mismatch in business education between curriculum content and the development of employability skills in graduates. Benefits for diversity and inclusion are also provided.

Keywords: Employability, Education, India, Skills, Vocational Behaviour

Article Classification: Case Study

Introduction

India is the 7th largest country globally by land area incorporating 29 states, each of which has a distinct economic and socio-cultural development structure. The population of 1.38 billion makes India the second-most populous country after China. Furthermore, one-fifth of the population is under 21, with around 7,700,000 (77 lakh) students enrolled in higher education. Therefore, equipping students with skills to enhance their employability needs special attention to benefit from this rich and diverse human resource, which is a significant source of employees for knowledge-based work across developed nations (Bodhi *et al.*, 2021; Shahrill *et al.*, 2021). As stated by Gupta and Prasad (2021, online), 'with 10 to 12 million youth entering the workforce every year, India should not only train and skill them for the domestic economy but for the world.'

The universities and colleges of the nation play a crucial role in developing this pipeline of talent to meet the growing demand for graduates on a national and global scale. Over the last 30 years, the role of universities has come under increasing scrutiny with a tighter couple of educational experiences to economic demands (Smith *et al.*, 2018). Emerging markets are also looking to compete with international institutions by increasing the legitimacy of their institutional credentials (Buchanan, 2019). The massification of the higher education system has increased access and, subsequently, the diversity of graduates entering the labour market (Bridgstock and Jackson, 2019; Gandhi, 2018). The increased participation in higher education opportunities has also translated into increased college-level enrollment. Career guidance and employability skills are increasingly crucial across college and higher education to respond to the industry's need for work-ready graduates (Donald *et al.*, 2018; Riccomini *et al.*, 2021). Increased student numbers have also led to a decline in the value of degree credentials as the sole measure of determining employability. Employers now expect strong evidence of employability capital in graduates and individuals to take ownership of their careers (Donald

et al., 2019). Employers also expect prior work experience (Hunt and Scott, 2018), transferable skills (Jackson, 2016), and a global mindset (Dippold *et al.*, 2018).

The Constitution of India's legislative section is divided into three lists (Union List, State List, and Concurrent List). Education policy in India sits within the Concurrent List, which gives power and responsibility to the Union and the State levels. At the Union level, the Ministry of Skill Development and Entrepreneurship (MSDE) is accountable for coordinating skill development activities in India. The MSDE has supported various organisations, including the National Skill Development Corporation (NSDC). Examples of schemes initiated by these organisations include the National Skill Development Mission (NSDM), the National Policy for Skill Development and Entrepreneurship (NPSDE), the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the Skill Loan Scheme (SLS), and Rural India Skill (RIS), DDU Kaushal Kendra's amongst others.

The existing socio-cultural situation of a state affects college students' employability and graduates of that region (Williams *et al.*, 2016). In India, each of the 29 states has a unique development trajectory. Skill development programs devised by the Central Government have been spread across more than 20 ministries and departments without any robust coordination and monitoring mechanism to ensure convergence (Tara and Kumar, 2016). While most of the states in India follow this central model, several states have moved towards localised functional convergence by creating State Missions. The decentralisation of skill development initiatives to the State level offers opportunities to tackle low employability, underemployment, and unemployment issues. The success of such schemes also requires building capacity at the district and state levels for planning and monitoring the implementation of projects (Agrawal and Pillai, 2019).

Micro-initiatives operating within the macro-skilling environment are beneficial for developing skills sustainably by reducing the urban-rural disparity, gender, and digital divide

(Nimmi *et al.*, 2021). ==In collaboration with== the Asian Development Bank (ADB), the state of Kerala offers an example of one such micro-initiative through the Additional Skill Acquisition Programme (ASAP) project. The aim of this paper is to critically explore the ASAP project in the state of Kerala in India as a case for the inclusive development of employability in college and university students. Whilst critical assessments of development programs have begun to appear in the vocational behaviour literature, to date, these have been predominantly focused on Australia (Khalaf, 2020), Hong Kong (Lo and Tang, 2020), and East Asia (Horta and Mok, 2020). The focus of this paper on India thus offers complimentary, timely, and valuable insights.

Graduate Employability: What is it? Why is it important?

Graduate employability has been a central component of higher education policy as graduates enter competitive global labour markets (Donald *et al.*, 2019; 2018). Vocational behaviour and career scholars have spent the last twenty years seeking to define graduate employability, although conceptual clarity has often proved challenging (Pegg *et al.*, 2012; Sewell and Dacre Pool, 2010). The term was ==initially== defined by Knight and Yorke (2004, ==p.5==) as

> a set of achievements - skills, understanding and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations. Which benefits themselves, the workforce, the community and the economy.

The definition offered by Knight and Yorke highlights how graduate employability encapsulates graduate attributes, defined by Bowden *et al.* (2000, p.1) as

> the qualities, skills and understanding a university community agrees its students should develop during their time with the institution. These attributes include, but go beyond, the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses.

Whilst new definitions of graduate employability continue to emerge, the concept of skills and attributes remains prominent. Kinash and Crane's (2015, p.vi) state that

> Graduate employability means that higher education alumni have developed the capacity to obtain and/or create work. Furthermore, employability means that institutions and employers have supported the student knowledge, skills, attributes, reflective disposition and identity that graduates need to succeed in the workforce.

Furthermore, scholars have been keen to highlight the distinction between 'employability' and 'being employed'. Clarke (2018) positions employability as an antecedent to employment, acknowledging that employment factors extend beyond those controllable via an individual's agency. Donald *et al.* (2018) also observe how metrics claiming to measure graduate employability often measure employment through snapshot-in-time data. They state how demand for graduates can vary by sector, geographical location, and chance event occurrences such as the 2007-2008 global financial crisis. Furthermore, Jackson and Bridgstock (2021) highlight additional barriers to employability, such as an oversupply of graduates compared to labour market demand. Saturation of the graduate labour market can also lead to underemployment, whereby an individual with a university degree is employed in a job that does not require a degree (Arun, 2017). This is detrimental to the individual in terms of career progression and life aspects and the national economy regarding tax revenue and productivity (Jackson and Collings, 2018; Zakkariya *et al.*, 2020).

Employability Models and Skills

The two decades from 2000 to 2019 saw the development of a plethora of conceptual models relating to graduate employability. In his work, Harvey (2001) highlights the importance of Higher Education Institutions in partnership with other actors in providing development opportunities for students to enhance employability and, subsequently, employment outcomes. Knight and Yorke (2004) drew on Understanding, Skilful practices, Efficacy beliefs, and

Metacognition to offer the USEM model of graduate employability. They sought to embed employability into the university curriculum to consider the views of a variety of stakeholders. Dacre Pool and Sewell (2007) developed the Career-EDGE (Experience, Degree subject knowledge, Generic skills, and Emotional intelligence) model. Cheon (2014) offered a conceptual model of graduate employability informed by an Eastern context of Korea. This highlighted the role of education and training on skill development as a means for employability. Su and Zhang (2015) then offered an integrative model of employability skills in China, drawing on five aspects: personal attributes, professional ability, communication and interpersonal ability, practice experiences and ability to solve problems, and career attitude. Clarke (2017) presented an integrative model of graduate employability drawing on human capital, social capital, individual behaviours, individual attributes, perceived employability, and labour markets. Finally, Donald *et al.* (2019) developed a conceptual model of self-perceived employability, drawing on six human capital components (social capital, cultural capital, psychological capital, scholastic capital, market-value capital, and skills), careers advice, and career ownership.

All of the models discussed above are equivocal in acknowledging the skill part of employability and the role of Higher Education Institutions in imparting employability to students. Career and Higher Education researchers recognise the importance of graduate employability at the individual and the national level, acknowledging that the global labour market is interconnected and interdependent as part of a career ecosystem (Baruch, 2013). However, the career theory and vocational behaviour literature on graduate employability lack the operationalisation of skills development approaches, particularly from Asian contexts. Insights from Asia can offer knowledge-sharing opportunities between Eastern and Western countries to enhance the employability of individuals for entry into a global and competitive labour market (Romgens *et al.*, 2020).

India's skill development practices are still embryonic compared to many other countries. A variety of Technical and Vocational Education and Training (TVET) or Vocational Education and Training (VET) models have been developed in Australia, Canada, China, Germany, Malaysia, the UK and the USA (British Council, 2021; CTE, 2020; Mckinsey, 2021; NSDC, 2020; OECD, 2020). While the courses' approaches to funding and content vary by country in response to their specific labour market needs, the common theme is integrating theoretical education based on expert input alongside real-world work experience, often via an apprenticeship (Hockenos, 2018). The prevalence of these approaches worldwide also highlights national government responses via upskilling their talent pools in response to global talent shortages. The ASAP approach in India offers a different albeit related response to the global challenges of upskilling citizens.

The paper focuses on the operationalisation of skill development via the ASAP project in Kerala in India. An overview of the context of the study is now provided before attention moves to findings from the implementation of ASAP.

Context of the Study

Kerala: India

Kerala is one of the southern-most states in India and has a population of 33.3 million, making it the 12th largest state by population. Kerala's approach to human development has focused on the public provision of education and health combined with striving for gender parity and reduction in the digital divide (Government of Kerala, 2014). The social security programs that help the vulnerable sections of society underpin Kerala's development model (Nimmi and Zakkariya, 2016). The state of Kerala has a unique trajectory of development compared to the rest of India. This is observable in terms of the social and human capital indicators of well-being and universal elementary education attainment levels for nearly all its citizens (Tilak,

2016). However, these benefits from the welfare-drive model have not translated into the outcomes of economic growth that would generally be expected. Instead, increased levels of educational attainment became linked to higher rates of unemployment. In 2012 the unemployment rate was 6.1 per cent for those with primary education and 12.4 per cent for secondary school graduates, compared to 33.7 per cent for higher secondary school graduates and 26 per cent for university graduates (Arun, 2016). This meant that Kerala had one of the highest unemployment rates of any state in India.

The unusually high rates of educated unemployment in Kerala indicated that despite high levels of educational attainment, applicants were not meeting the needs of private-sector employers. At the individual level, applicants held negative perceptions of the private sector and self-employment. Instead, they desired public sector roles which they viewed as more secure employment opportunities than work related to their degree discipline (Arya, 2019). From the employer's perspective, applicants for jobs were deemed to lack the required skills, despite satisfying the qualification criteria. This highlighted a wider skill mismatch between the skills provided to individuals during their education and the skills desired by the labour market. The majority of graduates lacked fluency in English and familiarity with essential Information Technology (IT) skills. The curriculum and teaching methods appeared to have failed to keep pace with the evolving needs of the Indian economy as it had experienced rapid growth and globalisation since the mid-1990s. Such changes result from a shift in Kerala's economy away from production and manufacturing and towards consumer-centric sectors. Kerala's workforce has not been able to adjust to the fast structural changes in the state's economy.

In response, the State Skill Development Project (SSDP) highlighted to the state of Kerala the skill development needs for its college and university students. The report stated that conventional education is not enough to fulfil the development of students or the needs of

industry (SSDP, 2012). Subsequently, the ASAP project was developed as a preventative dimension to ensure that students graduating from educational institutions were equipped with the necessary employability skills required by the labour market at the state, national, and international levels. The following section explains the process model for ASAP and how the functioning is backed by prior research.

Additional Skills Acquisition Programme (ASAP)

The ASAP project was established in 2012 as a combined initiative of the General Education, Higher Education, and Labour departments in Kerala, later forming a Government Company in 2020 (Kanagavalli and Haseena, 2020). Funding for the project was provided by the Asian Development Bank (ADB) via a Result-based Lending Loan (RBL), underpinned by Disbursement Linked Indicators (DLIs) such as the time-bound completion of the project (ASAP, 2013). The primary focus of ASAP was to integrate general, and vocational education for students enrolled in school, college, or university courses to enhance their employability levels to prepare them for the world of work. This responded to calls by the Kerala Government (2012) to tackle 'the issue of growing unemployment in Kerala'.

The ASAP project adopts a hub-and-spoke operation model and offers training by emphasising experiential learning and the development of practical skills (ASAP, 2021; Kanagavalli and Haseena, 2020). The hub and spoke model is envisaged such that a Skill Development Centre (SDC) operates as a central hub for approximately 10-15 educational institutions. Among the significant issues with employability among Indian graduates is their lack of confidence to communicate well in English (Clement and Murugavel, 2015). Keeping this critical issue in mind, the three-tier model begins with a foundation module consisting of 100 hours of experiential-oriented English Language training and 80 hours of IT training to provide communication skills relevant to the modern workplace. The rigour with which

students had undertaken the course is assessed by the British Council (BC), validating the program structure.

Besides the foundation skills or the personal skills to thrive in the workplace, students also need to acquire sector-specific technical skills. In stage two, participants undertake a sector-specific skills course run at an SDC to provide the necessary training facilities that individual educational institutions cannot offer. The selection criteria are such that students undergo an aptitude test and are subsequently allocated to the most suitable skills course based on their results and individual needs. The program ensures the skills provided align with the student's interests, which is very important in creating employability self-efficacy. The technical SDC training skills courses range from 110 to 270 hours. Real job experience is an essential booster to the employability perceptions of fresh graduates. Exposure to a work setting is beneficial to fresh pass-outs as it will channel their active job search behaviour (Zakkariya *et al.*, 2020). This is addressed in the training process as upon completion of the foundation module and the sector-specific skills module, the final stage of ASAP is the provision of access to on-the-job training or internship opportunities.

Findings

Self-Reported Impacts of ASAP

The beneficiaries of this training program are secondary school and college students in the state of Kerala in India and university students in the region. The appreciation of the existing programs has led to the opening of 121 SDCs and 1,477 partnering institutions (ASAP, 2021). The ASAP project also provides targeted demographic support. The SHE SKILLS initiative was launched in 2019 exclusively to support women to improve their life standards by facilitating them to learn marketable skills and enabling them to become economically self-

sufficient by connecting them with employment opportunities (SHE SKILLS, 2019). Around 10,000 women have applied for various courses, of which 5,529 have gained admission.

The ASAP project has recently expanded its operations to establish 111 Advanced Skills Development Centres (ASDCs) and 16 Community Skill Parks (CSPs) across Kerala (ASAP, 2021). The success of the government-led projects lies in including private players who can provide expertise in a variety of new and emerging fields. ASDCs, established at existing engineering colleges and polytechnic institutes and the CSPs collaborate with private players to offer diverse training programs for the community. To ensure the relevance of content, ASAP has associated with 42 Sector Skill Councils (SSCs) and 42 Industry Partners, in addition to its own Business Advisory Councils (BACs) (ASAP, 2021). The BACs represent individual sectors and decide which courses offer the most outstanding value to each industry sector. They also review the curriculum content of their partner schools, colleges, and universities to prevent duplication with existing curriculum content. The BACs also collaborate with the Quality Assurance (QA) team to rigorously monitor and report on the quality standards of the ASAP project. The skills modules align with the National Skill Qualification Framework (NSQF) and are approved by the respective Sector Skill Councils (SSCs) under the National Skill Development Agency (NSDA), National Council of Vocational Training (NCVT) or the National Skill Development Corporation (NSDC).

Employability Survey (2019): ASAP Reporting

The Employability Survey (2019) (conducted by ASAP, ADB, and Price water Coopers jointly) reported on the tracking of 1,21,017 ASAP participants who were trained across the 2012-2013 to 2016-2017 batches to ascertain their current status as of 2019. The study found that 65.8 per cent of participants are continuing higher education, and 7.75 per cent are continuing other forms of vocational training courses following participation in the ASAP

training during college. A further 15.61 per cent are employed in the private sector, 5.71 per cent are self-employed, 1.53 per cent are employed in the public sector, and just 3.60 per cent are classified as Neither in Education, Employment or Training (NEET).

The Employability Survey (2019) utilises an Employability Index (EI) which is scored between 1-100 and determines how capable an individual is of securing employment in a particular domain or field compared to the general population. The average EI score for non-ASAP participants in 2019 was 54. The ASAP project specifically targets support to individuals with lower employability skills. Individuals entering the ASAP training had an average EI of 49. After participation in the ASAP training, these same individuals increased their average EI to 69. A score of 50 means the individual is more employable than 50 percentile of the population. This represents an increase of 20 percentiles and means ASAP participant scores are 15 percentiles higher on average than the non-ASAP population. As the Training Head of ASAP, Anil Kumar (2019) states:

> The program impact is reflected in the sharp jump of 41% (over the baseline) in the latest employability score for ASAP trained candidates. This indicates the effectiveness of training in making the candidates more employable as per industry standards.

Furthermore, increases in the female EI score over the baseline exceeded their male counterparts by 11 per cent in the ASAP population. Individuals categorised as Below the Poverty Line (BPL) outperformed those classified as Above the Poverty Line (APL), indicating the ASAP intervention's inclusive impacts. This is further supported by the fact that of the ASAP participants, 58 per cent are women, and 56 per cent are from BPL.

The same Employability Survey (2019) reported that 67 per cent of students agreed that the ASAP training provided support beyond the traditional curriculum, which was relevant to their current job requirements or for participation in higher education. Furthermore, 70 per cent of employers rated their level of satisfaction with ASAP graduates as eight or higher on a ten-point scale. Almost all employers showed a desire to hire more ASAP graduates.

Discussion

Sustainability of ASAP

The ASAP management has decided to progress to a self-sustaining model through generating revenue by offering consultancy services to other states in India. Their ambition is to build a cohort of 3,000 Skill Development Executives (SDEs) and 200 Programme Managers (PMs) to sustain the quality of the ASAP training along with scalability (ASAP, 2021). The SDEs provide the foundation skills training and are drawn from diverse backgrounds and sectors of employment. As the Chief Executive Officer of ASAP (Madhaven, 2019) states, 'The fact that 66% of the SDE cadre constitutes women has encouraged more and more girls to join the training programs'. The vocational training courses are run by the PMs and are deployed by ASAP to provide market-relevant skills training. Advanced training centres are now being set up in engineering colleges to offer training in modern skill areas such as artificial intelligence, machine learning, robotics, and cloud computing.

The ASAP program has devised a path-breaking concept of Community Skill Parks (CSPs) to expand training to the broader community. Conceived as an Industry-lead Public-Private Partnership (PPP) model, the government provides the essential infrastructure, including buildings, and industry partners identify, design, and manage market-relevant courses. CSPs are envisaged as multi-skill development centres equipped with state-of-the-art training facilities across the state of Kerala. These centres are equipped to offer market-oriented and globally relevant skill courses of high quality, emphasising developing knowledge through access to real-world work experiences. The CSP training programs are grouped into 4 clusters-Precision, IT, Heavy Machinery and Activity (ASAP, 2021). Skills and language courses are also offered to the broader public on a fee basis.

Finally, the SHE SKILLS program has been expanded via SHE SKILLS training centres (SHE SKILLS, 2019). The objective is to improve the living standards of women by

helping them learn marketable skills. The SHE SKILLS program now offers 23 courses covering 11 job sectors.

Theoretical Implications

The theoretical implications come from addressing the lack of representation of skills-based employability initiatives from India in the vocational behaviour literature. Whilst critical assessments of development programs have begun to appear in vocational behaviour literature, to date, these have been predominantly focused on Australia (Khalaf, 2020), Hong Kong (Lo and Tang, 2020), and East Asia (Horta and Mok, 2020). The focus of this paper on India thus offers complimentary, timely, and valuable insights.

Furthermore, whilst many conceptual models of graduate employability have been developed that agree on the critical role of skills development in enhancing graduate employability, there remains a lack of operationalisation of skills development approaches, particularly in Asian contexts. This paper addresses this gap in the literature by focusing on the operationalisation of skill development via the ASAP project in the state of Kerala in India. The authors agree with Romgens *et al.* (2020) that insights from Asia can offer knowledge-sharing opportunities between Eastern and Western countries to enhance the employability of individuals for entry into a global and competitive labour market.

Practical Implications for Business Education

The practical implications come from knowledge sharing of innovative strategies at the state, national, and international levels to enhance the employability outcomes of individuals entering the labour market. The ASAP project highlights the benefits of a decentralised approach to the skilling of youth to address high levels of unemployment at a state level (Arun, 2016).

One of the challenges for business education is the often-reported mismatch by employers between curriculum content and the development of employability skills in graduates (e.g., Clarke, 2018; Jackson and Bridgstock, 2021; Somers *et al.*, 2019). Yet, employers reported satisfaction with the skill level of college and university graduates entering the labour market who have participated in the ASAP program. Improved confidence and the ability to communicate in English as a second language help overcome a significant issue for the employability of graduates in India (Clement and Murugavel, 2015). The involvement of industry partners in developing and delivering technical and skills training thus appears to be beneficial. This approach could be adopted in other states or regions or within different countries to solve specific problems within a localised context. This echoes the calls of Donald *et al.* (2021) for organisations and educational institutions to foster greater levels of collaboration to prepare students for the future demands of the workplace.

Additional practical contributions come from the enrolment approach taken by ASAP and the focus on female and BPL diversity. One of the barriers to providing career advice to college and university students in countries worldwide is access to these students. The risk is that the most engaged students participate in employability-enhancing programs, who would likely have secured employment anyway. Meanwhile, the students who need the support most fail to receive it because they do not proactively engage (Donald *et al.,* 2019). The ASAP project overcomes this issue by targeting the support to the students who need it most, with specific emphasis on supporting female and BPL students who often have lower baseline employability measures than their male and APL counterparts. In particular, the SHE SKILLS initiative sees a diverse representation of people delivering the training, which overcomes barriers relating to students not being able to relate to the trainers or seeing them as role models (Donald *et al.*, 2018). The mandatory nature of ASAP and the integration of technical knowledge and skills addresses calls for novel approaches to advancing the relevance of

business education by the involvement of all stakeholders for the benefit of all stakeholders (Somers *et al.*, 2019). This includes the ability for students to develop human capital and have the ability to signal their employability to prospective employers when undertaking the transition from education into the labour market (Clarke, 2018; Tomlinson and Anderson, 2021).

Future Research Agenda

Dixon-Fyle *et al.* (2020) highlighted the importance of Diversity, Equity, and Inclusion (DEI) policies for organisational performance based on a study involving over one thousand large companies across fifteen countries. Moreover, diverse cohorts of individuals have been shown to have lower levels of confidence in their abilities and often struggle to signal and market their skills to potential employers (Donald *et al.*, 2019; SHE SKILLS, 2019). The ASAP approach appears to provide significant support in addressing these challenges. Empirical research may wish to investigate the trial of mandatory technical and skills sessions either for all students or targeted at specific demographics, including first-generation students. These trials could take place in different regional or national contexts and with differing diversity representation from the course leaders to provide a greater depth of insight into how to maximise the benefits of such an intervention.

Furthermore, the opportunity could exist for longitudinal research to examine the impacts of ASAP or similar interventions over time. This builds on an emerging theme within the vocational behavior literature of sustainable careers consisting of three dimensions: person, context and time (De Vos *et al.*, 2020). The dimensions of context and time also capture the notion of an evolving future of work and the challenges faced by employers of a global skills shortage when attempting to meet the needs of their organisations.

Finally, future research could use qualitative interviews or focus groups to understand where alignment or divergence in viewpoints exists and help develop a more collaborative approach between the multiple stakeholders to benefit all stakeholders and broader society.

Conclusion

This article explored the ASAP project in the state of Kerala in India as a case for the inclusive development of employability in college and university students. The findings indicated that participation in the ASAP project led to an increased employability score. These increases were most pronounced in women and individuals living below the poverty line. The theoretical implications came from addressing the lack of representation of skills-based employability initiatives among students from India in the vocational behaviour literature. Practical implications came from knowledge sharing of innovative strategies to enhance the employability outcomes of individuals entering the labour market, specifically via new ways to overcome the reported mismatch in business education between curriculum content and the development of employability skills in graduates.

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