

The Perspectives of Academic Leaders on Positioning Higher Education for the Knowledge Economy in Oman: Challenges and Opportunities

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Abstract

Oman Vision 2040 strives to continue shifting the country from an oil to a non-oil-based economy by emphasizing the value of diversification in HEIs. This study aims to provide in-depth insights into implementing the knowledge economy strategy in Oman's higher education system and uses a case study methodology, draws on thematic analysis, and adopts an interpretive perspective employing semi-structured interviews conducted with the dean, assistant deans, and heads of academic departments. The study manifests a common sense among the academic leaders that espousing the policy of the KE in HE is agreed upon. This approbation of KE is ascribed to the discrepancy between developed and developing countries concerning the reality of the higher education systems and the embedded influence of neoliberalism. The study identifies the four fundamental pillars of KE in HE, whereby the study could interpret the existing educational leadership style undertaken and speculate on its future directions. The research indicates three obstacles facing educational leadership; challenges of practicing leadership, lack sustainable system (within the college), and external factors (beyond the college). It also unveils two significant benefits: preparing students for employment in the private sector will reduce the burden on the government to provide careers. Second, the potential reciprocal gains that are pursued in industry and HEIs through funding research, reviewing curriculum and learning outcomes together, and offering a hands-on approach to tackle challenges confronting the national labor market.

Keywords: perspective, leadership, Higher Education, Oman, challenges, opportunities

1. Introduction

1.1 Overview of the Study

The last two decades have seen a growing trend towards knowledge production, wherefore many of the leading countries have shifted from reliance on traditional recourses in running their businesses to (KE) Knowledge Economy where "the production, diffusion and use of technology and information are keys to economic activity and sustainable growth" (OECD, 1999, p7). Powell and Snellman (2004) point out that switching to a knowledge economy entails full involvement of the (HE) Higher Education sector. This premise is underpinned by the World Bank (2007, 2012), which emphasizes that education is an indispensable pillar to drive progress in new economic growth. In the same vein, developing countries have been increasing interest in this new economic transformation (Ramady, 2010). The sultanate of Oman is one of the countries that has transitioned to a knowledge-based economy owing to the demands of the economic reform (Al-Rahbi, 2008). By doing so, today, the core mission of HEIs in Oman goes beyond the traditional role of teaching and lecturing on the ground that universities are obliged to strategically collaborate with the private sector to promote a culture of enterprise and innovation (Chryssou, 2020).

1.2 Significance of the Study

Oman government revenue counts predominately, more than 77%, on petroleum, and recently, because the oil price has declined, the world bank has recommended policymakers in Oman focus on economic diversifications as a way of cutting back on its reliance on the oil sector (Al-Mawali et al., 2016; Al-Maskari et al., 2019). Therefore, the knowledge economy has become one of the key objectives of Oman National Vision 2040 (Fromson & Simon, 2019). As education is at the heart of the vision, higher education institutions are expected to

be responsive and play a vital role in bringing change (Education Council, 2018). Oman National Strategy for Education 2040 Report (2018) indicates that HE strives to build a culture of research, innovation, and entrepreneurship, align learning outcomes with economic needs and create an effective, sustainable funding system for education.

Some studies indicate that fostering a knowledge economy in higher education is fundamental to ensure a strong, sustainable globalized, and competitive economy (Abel & Deitz, 2010; Gallarotti, 2013; Godin, 2006). However, many academic scholars argue that this blueprint is attributable to the influence of the political ideologies of neoliberalism (Bosetti & Walker, 2010; Courtney & Gunter, 2015; Giroux, 2002; Olssen & Peters, 2005). Undertaking the KE in HE has rapidly expanded without considering the criticism or the distinction of educational contexts in developed and developing countries. Concerning the Omani higher education setting, this policy has not been questioned yet, and academic leaders' perceptions of it are still unknown. Also, since the knowledge economy is a leading component of Oman National Strategy for Education 2040, it is imperative to be challenged and scrutinized by policy actors and educational researchers when a policy is borrowed from other models and contextualized. To date, far too little attention has been paid to higher education leadership practices and perspectives toward the reverberation of the knowledge economy in Oman. This study seeks to probe the dean, assistant deans, and heads of academic departments' experiences in implementing this strategy, how it has been perceived, and the gains and limitations of endorsing.

2. Literature Review

2.1 *The Conceptualisation of the Knowledge Economy*

The knowledge economy upsurge has extended well owing to the impact of the cutting-edge high-tech sector. This revolution has threatened the very footings of the orthodox industrial and occupational configuration, reformulated the standards, requirements, and legislation of economic growth and competition, and originated an international marketplace progressively for new commodities, services, and stakeholders that have been impelled in large part by new knowledge (Drucker, 1994; Neef, 1998; Grewal et al. 2002). It seems that there is unanimity (OECD, 1996; APEC, 2003; Bontis, 2002; Drucker, 1999; Houghton & Sheehan, 2000; Powell & Snellman, 2004) in attributing the Knowledge Economy prevalence to three particular factors, including globalization, rapid technological development in information exchange, communication, transportation and computing, and seeking viable solutions to sustainable economic progress. This means that developing countries and organizations alike are required to amalgamate with the world of economy, become more innovative and quickly adapt to this new global change.

With regards to the notion of the knowledge economy, various terminologies have been used to depict this phenomenon which in turn have given rise to the lack of a conclusive definition to describe it with conviction. This is exemplified in the meta-analysis undertaken by Godin (2006), who traced the concept of the knowledge economy from 1950 to 1984 and found that more than seventy-five related terms have been employed throughout the evolution of this trend. The number is estimated to increase as economic and information developments are consistently growing. However, it has been noticed that studies over the past three decades have presented interchangeably and widely four main concepts: new economy, modern economy, knowledge economy, and knowledge-based economy (Hadad, 2017; Al-Rahbi, 2008). Although Neef (1998) believes that embracing KE leads to positive impacts in the workplace in relation to technology and communication, Godin (2006) argues it is nothing but a buzzword or a label exploited to allure policymakers' attention to focus on the field of science and invest more in it. A broader perspective has been adopted by Drucker (1994) and Reich (1991), who describe KE as the undermining function of the blue-collar workforce and the augmentation of the new proliferation of knowledge workers in the business community where the switch is from 'brawn to brain.' In general, this distinction among these terms indicates that the concept is problematic and loose; therefore, it is not easy to provide widely agreed definitions for the knowledge economy.

In contrast, APEC (2003), OECD (2002), Sheehan and Grewal (2000), and the World Bank (2004) have offered a more overarching explication that regards the use of knowledge in the economy as the fundamental catalyst of productivity and development across all industries in the sense economy is driven by knowledge. This perspective of the knowledge economy entices a broader range of researchers in developing countries (George, 2006; Hadad, 2017; Al-Rahbi, 2008) as it proposes prospects and potential aspirations for these states no matter what their demographic and geographic dimensions, accessibility of natural wealth and degree of industrialization or economic growth level in an endeavor to undertake knowledge economy strategies. In his classic critique of the knowledge economy, Toffler (1990) concludes that the most significant economic advancement in our lifespan has been the institute of a new system for generating wealth, not anymore on the

grounds of muscle but of mind.

2.2 The Pillars of the Knowledge Economy

While the correlation between widening the scope of knowledge and economic progress is not yet empirically evident (George, 2006), and the knowledge economy cannot be measured explicitly (Al-Rahbi, 2008), the investments in creating new knowledge have been increasing more and more among the most industrialized countries. This could be imputable to the influence of the Organisation of Economic Co-operation and Development (OECD) economies which are steering towards this tendency, assuming that knowledge, as an input, is currently becoming the sole determinant of production (Drucker, 1998).

Several parameters have been put forward by the World Bank Institute, which affords benchmarks, even if the gauge still endures a matter of judgment for every economy alone. Bontis (2004) and World Bank (2004) point out that these indicators serve as a practical measurement to evaluate the advancement of a certain economy or to compare the progress of particular economies. Similarly, OCED has schemed a framework encompassing four essential drivers of the knowledge economy in concert with the World Bank's researchers (OECD, 1996; Sheehan & Grewal, 2000; World Bank, 2004). One of these factors is adequate government provision which is responsible for enacting legislation through which competitive business culture and economic incentives can be promoted. The second and third pillars are information and communication technologies (ICT) and research and development (R & D), which are supposed to play a vital role in establishing a dynamic interplay between technology and local science, and the domestic industry to connect them with the expanding stock of global knowledge. The last component of the model is the education and training system expected to produce an innovative workforce.

2.3 The Impact of the Knowledge Economy on Higher Education: Challenges and Opportunities

There is a serious argument concerning whether HEIs are in trouble or just in the process of reconfiguration to fulfil the needs of the knowledge economy (Blackmore, 2002). Gammage and Mininberg (2003) and Stein (2007) maintain that in a knowledge-based economy, academics and ideas of educated people have become the underlying cornerstone for creating the affluence of nations. Riddell (1996) insists that the concentration must be on the educational organizations' framing and curricula to the knowledge economy's needs. It is substantial to equip students with skills that conform with industries of the future expectations and demands, which cannot be achieved merely over national policies, not simply within local boundaries. Similarly, Fernandez (2001) claims that countries that invest in the knowledge economy have the potential to gain tangible values and products, develop a highly-skilled job market, raise income and revenue and, in turn, ensure a strategic competitive advantage whereby the economic growth and development is boosted. This premise is highly underpinned by international organizations such as the OECD and the World Bank, which arguably urge and sometimes compel policymakers in the higher education sector to acquiesce in their blueprints, presenting education and training as one of the four fundamental backbones of the OECD framework for knowledge economy (World Bank, 2007, 2012). Besides, a large volume of recently published studies describing the positive role of universities concerning the knowledge economy in the twenty-first century. HEIs are considered the 'key facet' (Godin, 2004), the 'source of strength,' 'knowledge factories' (Bramwell & Wolfe, 2008) need for a 'diverse system' (Gillis, 1992), and the 'key drivers of innovation systems' (Huggin & Johnston, 2009) in the era of the knowledge economy. Gillis (1992) suggests that having a market in higher education, wherein educational institutions compete against each other for funding, results in an upgrade in the quality of education. Blunkett (2000) asserts that this competitive global market has brought economic gains by recruiting many international students.

Coaldrake (1999) and Middlehurst (2001) argue that globalization, external intervention, and financial reform have challenged the conservation and the spread of disciplinary knowledge, making it complicated for university leaders to engender considerable change in a competitive international academic environment market-based. Furthermore, in contrast to Blunkett (2000), recent evidence suggests that globalization and internationalization of higher education give rise to deep inequities in terms of admission, and consequently, millions of qualified applicants are denied access (Goldrick-Rab & Kendall, 2014; Letizia, 2015; Marginson, 2007; Stein, 2016; Tannock, 2009). In the same strain, Peters (2002) warns that the government's engrossment in nurturing a culture of enterprise, building robust ties with the private sector, focusing on entrepreneurship, and promoting commercial research implies a hierarchy of knowledge of which merits are standardized by economic measurement. Therefore over the long run, the prime aim of higher education is downplayed.

2.4 Knowledge Economy and Educational Leadership

The last two decades have seen a growing trend toward the intricacy of the leadership role in the tertiary education context (Bosetti & Walker, 2010; Coaldrake & Stedman, 1998, 1999; Cohen, 2004; Drew, 2010;

Knight & Trowler, 2001; Marginson & Considine, 2000; Mead et al. 1999; Ramsden, 1998). This increased complexity of higher education leadership is ascribed to the expansion of university core business which implies the repercussions of neoliberalism and the knowledge economy (Barnett, 2004; Hanna, 2003; Marshall, 2007; Middlehurst, 2007; Scott et al., 2008; Snyder et al. 2007). Some academic leaders point out that university now has to undertake a contrary paradigm when chattering courses considering the student as a scholar on the one hand and as a consumer on the other (Snyder et al., 2007; Giroux, 2005). Stiles (2004) and Whitchurch (2006) conclude that the concept of the academic as an independent researcher or autonomous thinker has been jostling with the business enterprise, thereby university deans have no choice but to create linkages with the commerce, the private sector, and governments to vie for financial support. Bosetti and Walker (2010) study reveals that the outer demands, which aim at rendering the primary mission of universities to drive the economy, have threatened the conventional purpose of higher education and have overlooked the vital role universities play in developing societies. Marginson and Considine (2000) indicate a new kind of leadership has emerged in these educational organizations where the vice-chancellor is a 'strategic director and change agent' and universities are operated as corporations in the form of key performance indicators (KPIs). In addition, the study unfolds a further effect of marketisation on research concerning prioritizing the quantity of research income instead of the quality of scholarship or total of publications accomplished and diminishing the function of the peer contribution to research. Drew (2010) identifies five significant issues facing the leaders in that university. His study finds that educational leadership needs to be strategic, flexible; creative; ready for change, able to maintain academic quality and handle competing tensions. A radical perspective has been adopted by Welle-Strand and Tjeldvoll (2002). They argue that if educational leadership cannot make the HEI competitive, it will sooner or later be coerced to alter its leadership model.

2.5 Research Questions

- 1- How is the knowledge economy conceptualized in policy in higher education in Oman?
- 2- What are the challenges and opportunities in positioning higher Education in Oman for the Knowledge economy?

3. Methodology

3.1 Research Approach

Through the qualitative approach, the researcher has not only been able to collect rich data when he gives voice to a significant group of policy actors but also demonstrated to what degree leadership mode, mission, and learning outcomes have deviated in Higher Education in Oman and subsequently highlighted the challenges and opportunities in leading HE towards KE. A single case study was the suitable methodology for such explanatory research.

3.2 Instruments

3.2.1 Semi-Structured Interview

To understand and analyze participants' thoughts and experiences, the researcher used a semi-structured interview method for collecting data. In doing so, the academic leaders could talk about the essential things in response to the knowledge economy policy. To unfold how the knowledge economy notion is conceptualized in Oman and identify the key obstacles and beneficial effects of espousing it, the researcher prepared 12 interview questions for five experienced Omani academic leaders and 12 backup probes and follow-up questions.

3.3 Procedures

The researcher selected a non-probability sampling technique to control the target population and ensure that all interviewees are primarily relevant to the study's theoretical aims. On those grounds, probability, voluntary, and snowball sampling were excluded. A homogenous purposive sample of academic leaders was recruited from one of Oman's governmental higher education institutions. The rationale for selecting purposive sampling for case study participants is that these individuals are likely to have a unique, peculiar, or critical perspective on positioning HE in Oman for the KE in question, and their attendance in the sample is relatively assured.

After receiving the ethical approval from the University of Manchester, the researcher sent an email to the dean's office explaining the study's aim and requesting permission to contact the appropriate participants. Four interviews took place during the last week of May, and one was during the first week of June 2020. Each interview was audio-recorded and took around 30-40 minutes.

4. Findings

The first research question, which focuses on the conceptualization of the knowledge economy from the higher

education leadership perspective, clustered around two themes:

- Approbation of KE policy in HE
- The key drivers of KE in HE

4.1 Approbation of KE policy in HE

When asked about the consistency between education and economic development policy and if HE sector is expected to play a role in improving the economy in Oman, there was an agreement amongst all academic leaders that HEIs can contribute a lot to economic reforms. Their educational organization has already aligned its vision, mission, values, and students' attributes with Oman vision 2040, which strive to foster economic competitiveness and seize opportunities to reorganize the liaison between the private and public sector. The need for higher education leadership to act and plan in tune with the country's aspirations was justified that experts developed the State Strategy from diverse stakeholders, and this transformation in university has become an international imperative. Two academic leaders said:

'I think it's [KE policy] quite realistic because I think the Oman vision 2040 has been formulated and revised by a group of concerned people, you know, specialists from different levels and fields are involved in making the strategy.'

'To me, it's very much shifted towards the right direction for what we need for our economy.'

There was an evident positive attitude expressed by participants concerning embracing KE in HE. The most striking finding to emerge from the data regarding this theme was that knowledge should become a commodity in public higher education in Oman for the sake of economy and quality. As one interviewee put it:

'Well, I'm optimistic that this new change will lead to huge improvements in the college; it is also a great opportunity for enriching the economy.'

However, one respondent argued that to render such initiatives effective, it is essential first to bridge the gap between the de jure and de facto authority in the educational organizations in Oman. In other words, without promoting academic leaders' agency, it is unlikely to expect rapid change, especially when bureaucratic leadership is practiced at the ministry of manpower.

4.2 The Key Drivers of KE in HE

Another standard view among interviewees was that espousing KE in HE entails academic leaders undertaking four main components to ensure potent execution for the KE.

'It's a must course [Entrepreneurship] here and should be given to all students in Oman, irrespective of their backgrounds and specialization, whether you are a business student, an engineer, or a doctor. This course is compulsory for all.'

Another key pillar for KE from the Omani academic leaders' perspectives was the research. They believed that promoting research in HE would not only keep the country away from lagging far behind on a global scale but also make them aware of national concerns. Interestingly, all participants highlighted the significance of conducting commercial research to offer solutions for challenges facing the private enterprise.

'We send our researchers to the industry to figure out what kind of issues need to be tackled, and accordingly, we provide support, especially the last two years we have been developing a number of projects together, and we have helped them to solve some problems.'

Another informant echoed this view, who indicated that the new vision for the college is built around research. It was found out that one of the main goals for this educational leadership is to make their organization an excellent research center in the region supported by the ministry, which is now endeavoring to constitute research groups relying on collective brains to set up a different environment within the colleges and to shift from the traditional way of giving knowledge to seeking knowledge by doing research.

The third important factor of KE in HE identified was the academia-industry relationship. The interviews revealed that the primary purpose for establishing the colleges of technology in Oman was to accommodate the private sector with skilled graduates. The academic leadership made great strides to enhance cooperation with the non-state actors.

'the college established a committee to focus only on strengthening the ties with the industry and have already signed a number of memorandums of understanding with a group of prominent international companies such as Huawei and Cisco'

Another academic leader underpinned the importance of nurturing collaboration between the college and the

labor market. For this reason, the college council included representatives from the industry as key members who attended specific meetings to discuss some common interests and be familiar with the latest trends in the local labor market and economy.

Quality was the last constituent concerning the educational leadership understanding of the notion of KE. Based on some participants' views, planning for creating a system of production or utilizing intellectual capital is ineffectual unless there is a team involved to assess the level of quality in service. The participants felt that the constant coordination between an external quality agency, such as the (OAAA) Oman Academic Accreditation Authority and the Quality Assurance (QA) Department within the college would be the safeguard for meeting all national and international requirements and gauging the extent to which the college vision is lined up with the Oman strategy 2040 and the KE demands. One academic leader mentioned that without regulating the institution's quality and reviewing the practices persistently, it would be difficult for the leadership to obtain academic accreditation for the organization. Conducting quality audits was regarded by another respondent as the catalyst which sparked the competition between the HEIs in Oman, which in turn would improve the quality of standards and procedures and build a national quality management system.

4.3 Educational Leadership Challenges

As finding the primary challenges that academic leaders encounter in the era of the KE is a leading segment of the second research question, three sub-themes were identified in this area:

- challenges of practicing leadership
- lack of a sustainable system and adequate tools (within the college)
- external factors and limitations (beyond the college)

4.3.1 Challenges of Practicing Leadership

Unlike the traditional educational leadership style, participants stated that their roles became more challenging and accountable. Two academic leaders expressed the multiple tasks leaders have to undertake nowadays and the disquiet for the likelihood of not being able to hit the target, which is measured annually by specific key performance indicators (KPIs):

"We are worried about these KPIs, you know, we want to arrange 20 sources of funds this year, ... 10 for research and 10 for publications for our staff and ensure participation in conferences for our students".

"in terms of leadership, you need to focus on research and learn how to build relationships with industry. And we have so many practices at the college and department levels right now.. We're trying to depend on publishing and building systems at the college so we can record all our data and refer to the data to ensure that we are achieving our KPIs". Julie

These two excerpts exemplify how educational leadership has been corporatized at HE in Oman through seeking sponsorship from corporate partners, borrowing corporate language, and consequently re-culturing HE leadership and reshaping academic leaders' identities. As a result, educational leaders need to strike a balance between the core mission of HE and these new responsibilities stemming from the KE.

Some participants declared that it is necessary to be equipped with new leadership skills to cope with this dramatic shift in HEIs. In the last five years, they were obliged to double the number of students, which made their leadership functions tougher and propelled them to hire more staff.

In general, these characteristics evidence that the leadership model adopted by the Omani academic leaders is a combination of distributed and transformational leadership styles, which both have been developed in a business context. They also show how the era of the KE has increased the duties of deans and heads in the field, wrapping them up with strategic planning, recruitment, budgets, monitoring, and evaluating, and, therefore, disconnected them from the teaching, learning, curriculum, and academic outcomes.

4.3.2 Lack of Sustainable System and Adequate Tools (within the college)

Further analysis revealed that the informants were still not contented with what had been done so far to make this transformation meaningful. This resentment was imputable to the deficiency of creating viable apparatus within the educational organization to operate systematically. Some academic leaders pointed out that the current collaboration with industry is not promising as it is neither sufficient nor consistent. It was explicated that bridging the gap between HE and the private sector cannot take place unless it is legislated very boldly in the college bylaws and regulations and having a public relation department run by specialists who are truly trained or solely customized their efforts toward tightening this relationship whereby this mission becomes their daily processes of business instead of assigning it to academic lecturers. Besides, academic leaders face a big

challenge with some companies which were reluctant to cooperate with the college because it is considerably distant from the industry zone.

Similarly, in terms of innovation and entrepreneurship, some participants showed dissatisfaction owing to the absence of a robust system. For example, the unit established to facilitate and encourage students and academics to come up with fresh ideas was not well structured. However, the college was requested to inaugurate it irrespective of how it should be employed, who was more eligible to manage it, what its ultimate goal was or how it could be measured. It was uncovered that staff needed more training to have the capacity to deal professionally with this transition in HE. Some participants criticized the entrepreneurship course, which was designed to inspire groups of students to establish a startup business together on the grounds of its practicality.

"This entrepreneurship course itself needs to be very well evaluated. I mean, we have been running this course for a number of years now. Has it been evaluated? How good is it for our students, our graduates These are questions that need to be raised".

Another academic leader argued that even though there was a small number of successful enterprises, the credit should not have gone to the college because those projects were improvised, not an output of a system or an outcome of a transparent chain of processes arrayed in the workplace; instead, it was a kind of personal efforts and initiatives come from the students themselves.

"but, you know, it is not enough to have it [Entrepreneurship] stated in bullet points in your strategic plans. The matter is not about having them displayed in papers. Many leaders would claim yes; we do have things that indicate that we are toward enhancing entrepreneurship ...".

Moreover, participants highlighted several hindrances confronting the leadership to develop a culture of research at the college. One of the significant drawbacks of the existing system was the lack of a sustainable mechanism to generate funds for research. What made the academic leaders worried was that the ministry did not allot a budget for academic research, the industry was disinclined to invest in unprofitable proposals, and the only accessible source of funding was the Research Centre which was selective in sponsoring academic projects. Another concern was that the lecturers were unenthusiastic about conducting research for two reasons. First, the failure to provide a reward system to incentivize the college faculty to publish more scientific journals or articles. Second, the research productivity was influenced by the teaching load assigned to the lecturers within the academic community. The feedback from the quality assurance department demonstrated that doing research was imposed on academics.

In addition, some informants felt that discovering new knowledge and moving into commercialization is a complicated process that necessitates educational leadership to raise awareness of intellectual property among staff and students. It was suggested that more efforts and strides should be taken regarding IP (Intellectual Property) policy, deemed equivocal for students and even for some leaders.

4.3.3 External Factors and Limitations (beyond the college)

The academic leaders' overall assessment of the initiatives undertaken to create an innovative environment was unsatisfactory due to the barriers mentioned above and extrinsic challenges out of educational leadership control. For instance, some participants blamed schools that failed to prepare students early to perceive the basic concepts of innovation and entrepreneurship. Therefore, leadership in HEIs had to start from zero to develop students' creativity and entrepreneurial skills.

"I think there is a problem with school education because we don't see sufficient input about innovation in schools. Of course, it only happens when you allow students to use their imaginations, ask them to think more critically, give them more space and basics earlier in school, so when they come to us, and we would provide them with the means and the facilities to be a bit more creative".

This premise was advocated by another academic leader who reported that undergraduates were not trained adequately at the secondary level to be independent or competent; thus, the college struggled to make them think outside the box, be problem solvers, boost their communication skills and research skills, to change their mentality and build their confidence so that they can run their businesses.

It is fundamental to note that it was unveiled that positioning HEIs for the KE involves overarching national synergy in which the governments, private agents, and the community act jointly and liaise concretely with HE to reach the optimal goal. The participants indicated that transformation would have been more rapidly executed if the outside world had engaged effectively instead of merely counting on HE to bring about change. As reported by the participants, one of the most significant distortions was recognizing that HE organizations are expected to take the lead in driving the economy. In contrast, the education system is only one side of this whole

equation; many other essential sides also have to play their roles. Two interviewees commented on this matter by saying:

"I'll say to boost this process and make it live, it is not only education has to work on this, but it is also a system of the government. "

"But to be frank with you, this issue has its own ecosystem, and without having this ecosystem born into existence, it will be detached initiatives. "

The last significant revelation from the conversations with the academic leaders concerning the external impediments was the unpredictable and fast-changing world owing to the impact of globalization and the digitization age.

"While the educational leadership was doing its utmost to foster entrepreneurs, the COVID-19 outbreak devastated small businesses, which consequently more likely to undermine students' tendency toward innovation and entrepreneurship".

It was articulated that such unprecedented or unexpected events constrained educational leadership to keep changing their strategies, revisiting their plans, and reconsidering their priorities permanently to respond to the expeditious international demands.

4.4 Higher Education and Opportunities of KE

The academic leaders suggested that embracing KE in HE could benefit the students, college, government, and industry.

In terms of students, shifting to KE raised the awareness of job-based and research skills through engaging in real-life opportunities, attending on-job training, participating in national and international innovation contests, studying entrepreneurial courses, and connecting graduates' projects directly with the challenges of the industry.

"And we found that our students nowadays have developed their research skills, and they get opportunities to present their project results and research results at the college level through the exhibitions and in the national level through conferences, at international level through competitions".

"It gives students a chance to convert their final year project to something viable and relevant to labour marked needs".

Furthermore, another great avail obtained from the KE was developing students' autonomy.

"the students will be independent, and their responsibilities will be higher. Seeking for knowledge will be enhanced depending on themselves as the main source to articulate certain problems and try to dig deep to find solutions. They build on their previous knowledge from the solutions to create such kinds of products or services."

It was pointed out that equipping students with entrepreneurial and employability skills would reduce the administrative and financial burdens on the government because graduates can be freelancers or join the private sector rather than waiting for the government to provide jobs for them.

"Well, if you follow the trends on Twitter, you will notice huge pressure on the government to respond to the job seekers' demands".

In addition, some academic leaders believe that colleges and industries alike can acquire gains from the KE if it is strategically implemented.

"Having a relationship with industry is really helpful. We have been getting feedback from them regarding the quality of graduates we prepare for them".

"we provide some database for them [corporates], and they pick up outstanding graduates, sometimes we arrange the interviews in the campus. It is a win-win situation".

5. Discussion

5.1 The Omani Educational Leadership Perception of the KE

The first research question sought to identify the academic leaders' conceptualization of the KE, which has become a paramount agenda for the transition of the HE in Oman. The current study found a concordant perspective regarding the permission to adopt the KE within the educational leadership context. This result is in contrary to previous studies (Bosetti & Walker, 2010; Marginson & Considine; 2000), which have suggested that

academic leaders in Western nation-states are not disposed to accept economists' intervention because the transformation has threatened the conventional mission of the university and rendered HEIs in crisis.

The discrepancy between the developed and developing countries regarding the context, characteristics, and reality of the higher education systems could be one of the key reasons for the contrasting views. While the university in the advanced world was established a thousand years ago, the HE in Oman is considered relatively young since the first university was founded in 1986 (Al-Rahbi, 2008). In other words, it is not groundless to impute this contradiction, at least in part, to the impact of the history of educational reforms, cultural settings, and backgrounds that academic leaders have witnessed and, therefore, plausibly constitute their dispositions.

There is another possible explanation for the Omani academic leaders' approbation of KE policy. This finding could be attributed to the embedded influence of neoliberalism on GCC where the economy is petroleum-based. This can be exemplified in the technical collaboration convention that the Arabian oil-rich countries signed with global financial offices and agencies such as the (IMF) International Monetary Fund, (WTO) World Trade Organisation, and the World Bank (Barnawi, 2017). The evidence of the leverage of the neoliberal ideology on Omani academic leadership can be seen in all participants' meanings. For instance, suggesting privatization and competition in HE would lead to improving the quality of education, acknowledging that universities should be the new starship to drive the economy. Hence, neoliberalism seems deeply rooted in a common sense through shaping the public frame of mind. This finding is consistent with Ball's (1993, p. 14) "we need to appreciate the way in which policy ensembles, collections of related policies, exercise power through the production of 'truth' and 'knowledge,' as discourses."

This finding has important implications for developing the Omani academic leaders' understanding of the role of education policy architecture in allowing or hampering particular policies, including its discourse and how it is contested, embedded, travels, and recontextualized.

5.2 The Factors of KE and Educational Leadership at A Micro-level

According to the OECD Framework of Knowledge Economy, education is an indispensable driver for this strategy. In claiming so, scrutinizing this factor through a group of educational leaders' engenders a micro-level analysis whereby the current study indicates four fundamental pillars of KE as the main dimensions of HE. While some of these factors are congruent with those suggested by the OECD (1999) and the World Bank (2012), namely research and innovation, other indexes such as recruitment of international students and patent count have been overridden by the Omani dean, assistant deans, and heads. Although pursuing to entice overseas students is one of the principal targets of the KE in some western countries (Van der Wende, 2003), it is somewhat surprising that international students' enrolment has been touched by none of the participants while discussing the potential role HE is expected to play to improve the economy in Oman.

In terms of the patent count in HE, the study reveals that the main grounds behind its underrepresentation are the lack of a sustainable system, slow procedures, and the ambiguity of the IP policy, which accords with AlRyami (2017), who points out that patent applications in Oman still need more clarity. These findings raise intriguing questions for policymakers and academic leaders regarding the likely impact of IP on increasing economic growth, its complex role, and how it can be measured.

By comparing the four key factors of the KE, that academic leaders highlight with the General Framework of the National Strategy for Education 2040 (GFNSE), which is stemmed from Oman Vision 2040, it is noticeable that the models are aligned to a great degree with each other. It might be explained that the educational leadership in Oman is based on the top-down approach in which strategies are visualized first by the government and then disseminated down to the senior academic leaders in the organizational chart of the college before they are cascaded to the bottom level of the hierarchy. However, this autocratic leadership style contradicts participants' views, suggesting that the old leadership style is not felicitous for the era of the KE, which requires lean leadership and more staff involvement in decision-making. As the hierarchical leadership model entails more expertise at the top level, this finding might also explain why some participants consider their roles have become more challenging during the dramatic shift to the KE epoch.

From the Omani academic leaders' perspective, unless the education leadership in Oman pays close attention to promoting a culture of commercial research, innovation, entrepreneurship, (UIC) University-Industry Cooperation, and (QA) Quality Assurance, HEIs are more unlikely to contribute to the knowledge production or add significant value to the domestic economy. Hence, it could conceivably be hypothesized that the types of leaders needed in the future in HE of Oman are those who can inspire staff to support the vision, are more involved in fundraising and networking to build external relations with governors and corporates, and can push research community forward to bring reputation to the university. This interpretation is advocated by Breakwell

(2006) in her case study of the vice-chancellors in the UK, who determines specific attributes that headhunters look for when it comes to leadership selection in the education business. The leadership qualities sought to appoint vice-chancellors in higher education that Breakwell identifies are consistent with the current study's inference.

5.3 The Fundamental Challenges Currently Facing Academic Leaders

With respect to the second research question, it is found that the role of academic leaders has been corporatized and influenced by theories and functional leadership approaches, which have evolved in the business context. The study also reveals that the existing educational leadership needs more effort to remove the dysfunctions within and without the organization to avoid blocking the flow of the KE. This shift to the corporate habitus in educational leadership can be seen clearly through preparing Omani graduates for the real world of business, seeking corporate sponsors, espousing entrepreneurialism, and measuring the effectiveness of HEI, its academic departments, and standards using vision, mission, business objectives, strategic planning, and key performance indicators. This confirms previous findings (Ball, 2007; Courtney, 2015) on how the vehicle of leadership has been exploited to help 'modernization' and reinforce neoliberal ideology.

While some academic leaders allude to the traits of Transformational Leadership (TL), focusing on inspiration, individualism, intellectual stimulation and idealized influence, and commitment to vision and communication, others have the propensity to employ the idiosyncrasies of Distributed Leadership (DL) derogating the power of heroic leadership and instead prefer to engage a wider group of experienced staff in making a decision. This result exposes a conflict between the academic leaders within the institution towards which leadership style is more apropos to deliver organizational outcomes. Therefore, it could be extrapolated as well that educational leaders tend to opt for the positions of instrumental and scientific models of leadership, which discourse on the behaviors of influential leaders and their potential impact on improving organizational performance (Gunter, 2001).

TL focuses on performance outcomes; thus, there is no explicit direct tie-up with education, pedagogy, or student outcomes. Moreover, TL is seen as semi-fascist since it implies individual practice, drawing on the "great man" theory, and assumes elites and followers (Harris, 2013). DL, which has been proposed as an alternative model for TL fails to analyze how to empower, manage, or facilitate shared leadership, promote a culture of trust, exert influence over what or whom, to what degree it is potent, and, more importantly, how is the power enacted between formal and informal leaders. According to (Tian et al., 2016), much uncertainty still exists about the practicality of DL, which could be attributed to the fact that the notion is still problematic and the lack of micro-political analysis, which might breed obscurity and misinterpretations for practitioners. Although Gronn (2002) insists that DL is valuable in educational settings because educational organizations invariably rely on teams to deal with the augmentation of administrators' tasks at the workplace, this study does not underpin that result.

The study also reveals that the HEIs in Oman comply with external experts and consultancy such as OAAA, which plays a role in Oman by measuring the quality and assuring national standards are in place. Therefore, HEIs in Oman are not expected to flourish or be autonomous as long as they are over-regulated by external bodies.

5.4 Opportunities of KE in HE: A Second Thought

The study indicates two opportunities that can be resulted from embracing KE. The first one is equipping students with entrepreneurial and employability skills, whereby the encumbrance of the government in providing welfare benefits and jobs will be curtailed. Secondly, the potential mutual boons that are sought to take place in industry and HEIs alike using funding research, reviewing curriculum and learning outcomes together, and offering a hands-on approach to tackle challenges confronting the domestic labor market. Although these results align with those of previous studies (Fernandez, 2001; Riddle, 1996), the prospective gains need to be revisited and scrutinized, considering the divergence between the context of economic development in Oman and the degree of industrialization in the developed countries. Also, it is noteworthy to consider the factors which trigger graduates to relinquish jobs in the private sector even if they are competent and prefer to join the public sector in Oman. It is very complicated for universities to get students ready for future labor market jobs when the world of work and enterprise keeps changing fast because of globalization and KE (Andrews & Higson 2008; Matlay & Rae, 2008; Tomlinson, 2008).

6. Conclusion

6.1 A Summary of the Study Results

This study set out to provide in-depth insights into implementing the knowledge economy strategy in Oman's higher education system. The first aim of this paper was to investigate how the notion of KE is conceptualized in policy and practice from the academic leaders' perspectives. In contrast, the second aim was to explore the challenges and opportunities of positioning HEIs for the KE on a national scale. In terms of the conceptualization of KE, the study has found that, generally, there is a shared sense among the academic leaders that espousing the policy of the KE in HE is welcome. The study also has identified that commercial research, UIC, innovation and entrepreneurship, and quality are the four fundamental pillars of KE in HE. The study could interpret the existing leadership style undertaken and speculate on the future directions of Omani educational leadership.

The study also indicates three essential obstacles facing educational leadership: challenges of practicing leadership, lack of a sustainable system and adequate tools (within the college), and external factors and limitations. On the other hand, the study unveils two significant benefits that can be derived from fostering KE. The first one is preparing students for employment in the private sector. Secondly, the potential reciprocal gains pursued in industry and HEIs through funding research, reviewing curriculum and learning outcomes together, and offering a hands-on approach to tackle challenges confronting the national labor market.

6.2 Contribution, Recommendations, and Implications of the Study

The contribution of this study has been to confirm that the sultanate of Oman seeks to transfer to a knowledge economy in response to the demands of economic reform, and, therefore, the essence of HE mission in Oman has been shifted from the orthodox role of pedagogy to the neo-liberal models in the sense in which universities are obliged to strategically collaborate with the private sector to promote a culture of enterprise, innovation and business research and to tailor their learning outcomes with the workforce needs. This particular insight may assist the policymakers and think tanks in the HE. In other words, unless the government creates viable apparatus within the educational organizations able to operate sustainably and sets up a reward system to motivate the academics to conduct research, the outcomes of KE are more unlikely to be attained. In terms of the external barriers, this study suggests a definite need for an overarching national synergy in which the governments, private agents, schools, and the community collaborate and liaise concretely with HE to tackle this challenge. Notwithstanding the relatively limited sample, this work offers valuable insights into developing a conceptual framework of KE in HE. It would be fruitful for Omani scholars to conduct a further investigation drawing on this perception.

Furthermore, the finding has raised an important question about what leads to TL and DL among academic leaders in Oman. Thus, further research should be undertaken to explore what compels Omani academic leaders to embrace these two models of leadership and what the practical implications are for this embodiment in HE. The finding of adopting neoliberalism agenda by the educational leadership has important implications for developing the Omani academic leaders' understanding of the role of education policy architecture in allowing or hampering particular policies, including its discourse and how it is contested, embedded, travels, and recontextualized.

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