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COMPANION DIRECT INVESTMENT: AN ACCELERATOR FOR THE ECONOMIC DEVELOPMENT OF TRANSFORMING RESOURCE-RICH NATIONS

Abstract

The discovery of hydrocarbons in a number of countries especially in the Middle-East has enabled these nations to develop and generate significant wealth. However, long-term sustainability within these countries' transforming economies has not been addressed in full, with oil revenues still accounting for the vast part of the countries' income. A novel open innovation concept, the Companion Direct Investment (CDI), is herewith introduced. By using the Emirate of Abu Dhabi as a case study, we discuss CDI's potential as a complimentary approach to enable value exchange leading to the location and nurturing of knowledge enterprise as a means to accelerating the transformation of these nations into knowledge-based economies.

Background—Natural Resource-Rich (NRR) Transforming Economies: Governments aspirations, current interventions, and limitations

Natural Resource Rich Economies (NRREs), especially those in the Arabian Gulf, the Gulf Cooperation Countries (GCC) enjoyed recent fast pace of development and have made significant strides in transitioning from primarily oil based economies to laying the foundations for becoming innovative and diversified knowledge-based societies (National US-Arab Chamber of Commerce, 2010). The Abu Dhabi Government with its Vision 2030 (ADIA, 2008), The Saudi Arabian Government through its vision 2020 (Saudi Arabian General Investment Authority, 2009) and the state of Qatar with its long term ambitious plans via the Qatar 2030 Vision (General Secretariat for Development Planning, 2008) all aspire to transform and diversify their Resource Rich economies into Sustainable Knowledge Based Societies.

Abu Dhabi, for example, aspires to become an innovation hub for knowledge, science and technology and to benefit from a diversified knowledge-based economy, where various sectors contribute to the total GDP with reduced reliance on

the Oil and Gas Sector. This is to be achieved through the expansion in to non-oil revenue sources, such as renewables (Reiche, 2010), whilst tackling key development areas, such as infrastructure and real estate (Davidson, 2009; Ponzini, 2011); tourism (Sharpley, 2002); and finance (Alfaró et al., 2006; Beck and Fidora, 2008). These developments are being pursued through interventions such as intensified investment activities (Partners, 2010); improved cultural and entertainment activities, drawing on Qatar's recent interests in Arts and Museums (Adam and Burns, 2011); improved education and research systems (Muysken and Nour, 2006). All these interventions can contribute to increase the absorptive capacity of these economies and lead them to transformation (Durham, 2004; Krogstrup and Matar, 2005; Murovec and Prodán, 2009).

Unfortunately in many of the Middle Eastern economies there is inadequate spending on activities such as research and development (R&D) (Nations, 2010), compared to OECD countries (OECD, 2007). This problem is exacerbated further by the tendency of cash rich nations to import rather than manufacture, which means there is little impetus for industries to conduct their own R&D. Furthermore, any needs which a particular industry does have are brought in from leading global R&D providers meaning that local universities and institutions remain weak (Nations, 2010). New forms of industry that create higher value added activities are therefore needed (Feldman, 2004). The enterprise base needs, in parallel, to broaden—since imbalances exist in resource rich economies whereby large enterprise dominate the share of industry's contribution to GDP, with little presence of Small to Medium Size Enterprises (SMEs).

There is a growing evidence and support for the idea that innovation and innovation processes, systems and models are fundamental to a healthy and sustainable development of firms as much as it is of nations and regions aspiring to build and sustain progress and competitiveness, and therefore need to be embedded within an holistic government policy approach, as an utmost priority (OECD, 2007). Governments of transforming NRREs increasingly need to capitalise on their current financial strengths and embrace "investor-driven innovation" (Bart Clarysse, 2012) as a mechanism part of their toolkit to accelerate the knowledge economy development in their nations.

Investment mechanisms such as Foreign Direct Investment (FDI) are being pursued by most of these countries. FDI is in general associated with positive economic development and indirect (spillover) effects on national economies (Branstetter, 2006). At present, however, its effects within the wide dynamics of the average Arab country economies is still not completely understood; specifically, increasing FDI was found to be no more likely to benefit an economy's growth than other types of investments (Krogstrup and Matar, 2005). The dynamics at play show a stronger volatility of FDI of non-diversified Arab economies, such as Saudi Arabia, compared to more diversified Arab economies (Krogstrup

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and Matar, 2005). Among investment vehicles, Sovereign Wealth Funds (SWFs) have in recent times arisen to increased prominence (NOTES, 2007), operating often sizable equity investments in large foreign multi-national corporations and in high value added brands (Beck and Fidora, 2008) - as well as classic FDI outflow investments involving multinational, international and global corporations, however with limited benefits. SWFs' potential to promote economic development, and especially the knowledge economy, is still greatly underutilised by and within NRREs and therefore represents an ideal candidate for the role of "Financier" to channel current natural resources-derived wealth in to knowledge intensive activities and for Governments as investors to drive innovation.

A new paradigm: Open Reciprocal Companion Direct Investment (CDI) and its benefits to Transforming Nations

We define Companion Direct Investment (CDI) as an innovation engine exhibiting reciprocal, multi-way and multi-directional monetary and knowledge "transactions". CDI possesses the following properties:

1. A financial transaction is made from a Host Country (Financier) and channelled as an equity investment in to both an established, knowledge intensive Micro-company - from a knowledge intensive region, and a prospective startup enterprise located in said host Country;
2. Initial knowledge transfer and—potentially, intellectual property (IP) rights "transactions" are made by the knowledge intensive micro-company on to the newly established, knowledge-driven startup enterprise in the Host Country to initialise its enterprise innovation engine.

Within CDI, equity investments are made in order to establish a new entity - a startup enterprise in the Host region, to be set up as a knowledge-driven Joint Venture company co-owned by the Financier and a (foreign) knowledge based micro-company / SME based in a Knowledge based economy. In addition, and according to Points 1 and 2, an investment is made by the Financier in to the same (foreign) knowledge based micro company/SME. The establishment of a Joint Venture, knowledge-based Company within the Host Country primarily enables two factors: knowledge infusion between the foreign enterprise and the newly established enterprise; access to Intellectual Property Rights already developed within the parent micro-company. The former dynamics enables the company to, at least in part, forego the lengthy process of having to develop an initial knowledge base, know-how, initial strategic business directions, and initial required skills identification and exploitation within the new business, whilst enabling a predominantly indigenous workforce to drive the enterprise and its core activities. The latter dynamics enables the development of technology and new intellectual property within the newly established enterprise, thanks to the R&D activities which

are core to any knowledge based and knowledge intensive business, to initially serve the Host country Market and its region, and with the potential to have a wider reach. This translates in to the creation of substantial value within the newly established business. The strong links associated with the parent company, the Host Country/Financier together with their respective networks at the same time ensure that strategic development will take in to consideration the global markets, optimizing the local and regional commercial—as well as economic, potential, whilst serving as part of the country’s strategic toolkit to accelerate its internal knowledge economy development.

The CDI innovation engine starts with the identification of an existing Knowledge Intensive Enterprise (KIE), usually from a knowledge intensive/based region, in general established to: develop technologies or knowledge based services utilizing intellectual property which the company would have access to—typically, own; and to satisfy identified or emerging market needs (in agreement with a dualistic “science-push/demand-pull” absorptive capacity two-dimensional paradigm (Murovec & Prodan, 2009). More generally, KIEs are “focused on knowledge creation, acquisition, learning, use, sharing, integration, exploitation and protection in order to achieve economic and social performance” (Dorinela, 2011). The nature and core technologies of the knowledge businesses considered for CDI offer the potential to be utilized as a platform to serve a global market, as well as to be tailored to suit different niche markets and different applications, in addition to enabling the traditional expansion of the business in other areas/geographical regions. This enterprise would have conducted a substantial amount of R&D, especially during the company’s early, high risk stages of startup, proof of concept (POC) and early prototype / technology demonstrator; it would have overcome the early, high mortality rate phase between research and successful innovation - the so-called “Valley of Death” (Gulbrandsen, 2009; Hudson & Khazragui, 2013); and would likely have developed a substantial knowledge base and technology, all factors leading to greatly reduced risks (for potential investors) associated with equity investments, compared to a company possessing an untested/unproven technology (Murphy and Edwards, 2003). However, the process of raising investment funds to pursue commercialisation, diversification and expansion may still present substantial challenges for the SME to penetrate markets—such as, for example, the GCC area, which may present higher than usual barriers to entry for micro-companies (especially market size, bureaucracy and other institutional and culture-related variables) (Mohamed and Sidiropoulos, 2010).

In order to progress through its value roadmap, this enterprise would therefore greatly benefit from investment as well as from the establishment of a sister operation in transforming regions keen on developing a Knowledge Economy, such as the GCC. The Host nation “financier”, whether it be the Government, an SWF or another entity as the investor, would, according to the definition of CDI, acquire

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an equity stake in the Knowledge rich enterprise which will fund the next phase of the business development. The magnitude of this equity investment would typically position the Financier as a minority shareholder investor in the micro-company. This first investment event can be considered as a classic FDI outflow from our nation of interest's perspective. Conversely, a parallel investment enabling the creation of a knowledge driven business within the Host nation will place the Financier as a co-owner of the new business (together with the Micro-company), typically holding a majority stake in this newly formed business.

The newly established enterprise would be a full-fledged company, incorporated in the Host nation and comprising of management, operational, research and development, sales and marketing, and manufacturing functions. Governance would have representation from the parent business as well as the Financier. The workforce and leadership would be—in the fullness of time, predominantly constituted by local skilled workers, managers and researchers. In contrast to a traditional FDI scenario, the newly established company would undertake significant research and development in the Host Country as well as manufacture, assemble and conduct product sales within its host nation. In parallel with the planned launch of a first product by the new enterprise, a presence within the wider region will be established, in order to service the neighbouring nations. This is by no means an exclusive trait of CDI; however, in contrast with the traditional FDI approach, in the case of CDI the decreased burdens dictated by the interface with the local and regional governments are greatly reduced, due to the active involvement of the Host nation's indigenous investment and leadership.

The inner structure, as well as the dynamic behaviour, of the new enterprise therefore differs profoundly from the archetypical product of a traditional FDI inflow process, as well as from the product of a Government-backed inward investment. This translates in a different dynamic at play, as well as a different economic and business performance of a CDI compared to a traditional FDI approach, as exemplified below. A real-life medical device company based in the United Kingdom, to which the authors have access, was utilised as a case study within an hypothetical investment scenario by the Sovereign Wealth Fund of Abu Dhabi. Real GDP calculations were conducted utilising the standard expenditure method (McCulla and Smith, 2007). Comparative analysis of economic performance between FDI and CDI shows the inner benefits of CDI, in terms of: a) greater sales generated, and at a increased rate, as the company benefits from an earlier start to its operations in the country and a more enhanced access to wider markets, in part due to a more direct access to levers of influence within the administrative and bureaucratic local machinery; b) greater government's revenue from taxation, due to the aforementioned increased employment, as well as the increased retention of capital within the region, owed to the predominantly local workforce, which leads to the redeployment of money within the local economy, assuming a constant level

of savings; and c) increased employment of skilled workforce employed, as a direct effect of the presence of a robust business core, together with R&D, Manufacturing and Clinical activities, in addition to Sales and Marketing, compared to FDI, whereby the business would be focused predominantly on sales activities, with a certain level of tech and clinical support. Calculated Real GDP for the Country, based upon a “single company” economy (Feldman, 2004) was found to be significantly higher in the CDI scenario than in an FDI equivalent. Again, the observed behaviour can be readily attributed to factors such as: extra number of people being employed – leading to greater taxation and consumption; increased number of sales of the device due to factors such as an earlier start to operations and preferential opportunities in the wider region which could occur as the government or financier would be a key investor in the Sister/Core Company and present opportunities to participate in other ventures and to hold exclusivity in the region.

In its role as an engine, CDI can readily integrate within existing and future innovation and development policies and immediately benefit the performance of government interventions and policies such as: educational reforms and increased focus on Higher Education, knowledge economy skills and the R&D agenda - since it can absorb the new up and coming flow of highly skilled local graduates who may be diverted on to other types of employment, as well as providing an initial knowledge platform as opposed to developing a knowledge base from the ground up, whilst avoiding the criticisms of “extra-mural R&D” as a means to boosting absorptive capacity (Murovec and Prodan, 2009); entrepreneurship policies, since CDI has the potential to stimulate the creation of knowledge entrepreneurs within the nation at a faster pace; financial and investment policies to improve internationalisation of the country’s economy and its diversification, due to the international nature of CDI; investment policies, since it stimulates and favours net and active investment in knowledge and skills, whilst acting as an accelerator for the development of further high level skills within the local population, thus fulfilling government’s objectives of nationalisation of the countries’ workforce (Mashood et al., 2009). The establishment of knowledge enterprise will also have the effect of producing cross-fertilisation of the economy and the potential development of new government-investor driven policies, since it can allow a more effective exploitation of potential synergies between sectors (for example, a thriving life science industry can help boost underperforming tourism (Sharpley, 2002), by stimulating the globally growing market represented by health tourism).

Conclusions

We have presented the novel concept of Companion Direct Investment as an engine to help boost the economic development potential of transforming resource-rich economies, such as the GCC, utilising the Emirate of Abu Dhabi, and a real

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life high potential micro-company based in a knowledge intensive region as the actors to exemplify the high-level operation of the model, and have shown its performance potential compared to a traditional FDI model. CDI provides a unique, flexible and innovative approach which fits harmoniously within NRRE governments' objectives and policies and the countries' respective long-term strategic visions and aspirations, with direct and indirect benefits to the economy and wider policy implications. Direct benefits are: economic growth via increased GDP and of increased skilled employment; increased Government revenues and projections of accelerated sales for the company's products pipeline. From the Government's perspective, *CDI ensures that the objectives of: increasing investments in to potentially high -return equity in diversified investments; enhanced and complementing knowledge transformative activity of the nation, in line with Government policy and aspirations of the Host Nation, are met.* Wider policy implications show significant benefits to seamlessly integrate within, and complement, existing innovation and development policies. A successful implementation of CDI within an holistic government-driven economic development strategy has the potential to help create a more dynamic and diversified, balanced sustainable knowledge economy.

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