

Bilateral knowledge-sharing for New Product development under the UN Sustainable Development Goals.

Evangelos Markopoulos^{1,2}, Emma Luisa Gann³

¹ Queen Mary University of London, School of Business and Management, 327 Mile End Road, GB E1 4NS, London, United Kingdom

² Turku University of Applied Sciences. Faculty of Engineering and Management, Joukahaisenkatu 3, 20520 Turku, Finland.

³ Hult International Business School. 35 Commercial Road, E1 1LD, London, United Kingdom

e.markopoulos@qmul.ac.uk; emma.gann@hotmail.de

Abstract. Developing countries are characterized by various factors that feed into a vicious cycle of underdevelopment; poor education systems, low-skilled workforce, low per capita income, and unstable governments which build a weak foundation for economic prosperity and foreign investments. Moreover, there is no foundation from which innovation could transpire to drive growth. This research aims to provide a solution to this development paradox by emphasizing the urgency to address innovatively the United Nations Sustainable Development Goals (UN-SDGs) and utilize effectively the human intellectual capital of the developing countries with the support of multinational organizations. It introduces a Bilateral knowledge sharing model providing the MNCs a framework to merge local knowledge with existing expertise for the development of local market products, whilst developing the country's human capital. Furthermore, it extends on the creation of Corporate Social Responsibility (CSR) actions for the MNCs related to the UN SDGs and 2030 Agenda.

Keywords: Multinational companies · Emerging markets · Knowledge Management · New Product Development · CSR · UN SDGs · International Business · Company Democracy

1. Introduction

Multinational Corporations (MNCs) are important for the national development of the less developed world. They contribute capital and know-how, diversify the economy and offer employment to the local workforce [1]. However, many are struggling to create value for the local market beyond those naturally incurring benefits. Due to a lack of empathy and understanding of the local customer, MNCs find it difficult to develop profitable products that add social value and contribute to resolving many sustainable development challenges that exist in their immediate business environment [2].

In most of the emerging and developing countries, local companies often do not have the skills or resources to deliver but also utilize innovative products and services. This discourages multinationals to consider new product development (NPD) for such markets, as lack of understanding of the local needs makes NPD activities to be of high-risk. Instead, NPD is heavily premised on the notion of creating products for consumption in developed economies through which Multinationals extracts resources from the developing countries, to offer better and cheaper solutions to the Western customer [3].

To address the issues developing nations face, the United Nations have introduced the Sustainable Development Goals (SDGs) in 2015 aiming to address poverty and inequality universally whilst supporting economic development [4]. Even though the 17 Goals raise attention to the most acute issues, they don't lay out a clear pathway to achieving those, leading to contradictory actions in some instances [5]. To maximize innovative impact and stimulate economic growth, companies must effectively deploy human knowledge in new product development initiatives at the developing markets.

2. The United Nations Sustainable Development Goals

In recent years, technological advancements and other rapid developments led to an increase in global inequalities [6]. As the rich countries accumulate wealth and use the most innovative technologies to operate at an increasing speed, the poor countries find themselves caught in a vicious cycle of underdevelopment [7]. In 2015, the United Nations have introduced the Sustainable Development Goals (SDGs), as a blueprint to achieve a better and more sustainable future for all [4]. Aiming to benefit the planet and every global citizen universally the seventeen goals, to be achieved by 2030, target key issues such as poverty, gender inequality, and climate change, among others.

Even though all seventeen SDGs are equally important, this research focuses on addressing four core goals as a foundation to reach the remaining ones. These are No Poverty (SDG 1), Quality Education (SDG 4), Decent work and Economic Growth (SDG 8), and Industry, Innovation and Infrastructure (SDG 9).

The United Nations calls for action from its member states' governments and from a range of stakeholders such as important public figures, private sector organizations. To deliver the Goals as planned in 2030 and prevent the global inequalities from widening, all stakeholders must act with utmost ambition [8]. This research relates the Multinational Corporations, an SDGs analysis, and the path to their achievement from a private sector viewpoint.

3. The Innovation Paradox

Innovation is at the heart of economic growth; innovative technologies, systems, and processes result in higher productivity, which in return allows an increase in output from a steady source of input. Innovation Paradox is the concept where the less developed world has access to significantly less innovation than the more developed countries. Captured by World Bank economists Cirera and Maloney in 2017 [2], the Innovation Paradox is a critical concept because productivity accounts for half of the

differences in GDP per capita across countries [2] and, paradoxically, developing countries do not indicate enough effort into innovative products, processes, and technologies.

To capture innovation, existing literature highlights the importance of management practices, and specifically the management's ability to identify new technological opportunities, develop a plan to exploiting them, and cultivate the human resources necessary to execute them [2].

In order to investigate the barriers that are constraining managers from doing such, this literature draws on primary research in the form of interviewing leaders of Multinational Corporations in developing countries. Nabil Habayeb, CEO of General Electric Middle East, Thomas Schäfer, Managing Director of Volkswagen South Africa, and Philipp Schiemer, CEO of Mercedes-Benz Brazil offer conclusive insights.

Thomas Schäfer, CEO of Volkswagen South Africa, highlights that the automotive industry is very much oriented after the markets with the biggest volume, such as China and the US. Therefore, developing completely new models for developing markets is almost impossible, as there is no means of financing. The problem is that Africa is a huge continent, with more than 50 countries which are all completely different in terms of religion, history, and culture and products for Western customer do not satisfy such respective product needs. The disparity between local needs and Western products and the difficulty to bridge it is a core theme of the innovation paradox.

4. A Democratic Approach to Social Product Development

To develop relevant products for the respective markets, managers must find ways to develop them economically and effectively, to balance the risk-return equation. This can be achieved by utilizing the human intellectual capital that derives not only from the employees of the MNCs but also from the local workforce who understands the market needs and expectations. Therefore, there is a need for a democratic space to be created in which ideas, knowledge, and expertise will be shared from all who can contribute [9]. Such knowledge-sharing driven democratic spaces can be created with the Company Democracy Model developed by Prof. Evangelos Markopoulos, and Prof. Hannu Vanharanta [10]. The model makes firms more receptive to employee's knowledge, increases innovation, competitiveness and generates shared value for the organization, the employees, the economy, and the society [11].

The Company Democracy outlines six levels towards a democratic company culture, presented in a pyramid structure which represents the incremental progression of the levels [10]. Even though the solution suggested by this literature can help a company with the implementation of responsible practices internally, its impact is limited to one stakeholder group. Additional literature exists, extending the Company Democracy approach into the field of New Product Development.

The Democratic New Product Development Model (DeNPD) developed by E. Markopoulos, E. L. Gann, and H. Vanharanta [12], is an extension of the Company Democracy Model, with a similar 6 level structure, to connect society and industry for collaborative product development (Fig.2), When elevating through the levels of the DeNPD, organisations can facilitate the evolution of an idea from the citizen up to the creation of a world-class innovative product. Every individual that identifies the need

for a new product can engage with an organization that would benefit from developing the respective product.

The research concludes a mutual benefit arises from such effort, as the company can cut back on research & development expenses and launch an innovative new product, whilst the individuals can gain an income from this process by commercialising their knowledge by using corporate resources.

The COMPANY DEMOCRACY

Model for NEW PRODUCT DEVELOPMENT



Fig. 1. The Democratic New Product Development Model.

5. The Bilateral Knowledge-sharing

To make the democratic approach to NPD applicable for the developing countries, this research attempts to formulate a solution to connect Multinational Corporations with local knowledge. Therefore, this paper extends the Democratic New Product Development model to make it valid for its application to developing economies (Fig. 2).

In Level 1 of the model, the organisation establishes a democratic culture that opens to external ideas for new products. It searches for local individuals to share their unfulfilled needs with the organization, which grows its understanding of specific product needs in a region. In Level 2, supportive teams are built around these individuals, to facilitate democratic collaboration. This way, employees can understand and uncover the root problem underlying the product idea and mature the initial idea into a solid concept. In Level 3, the actual development process takes place. It is essential at this stage to maintain a high level of collaboration with the local individual

and avoid risks from Western biases that can dominate the development process and diminish the relevance for the respective social context.

In Level 4, the focus lies on making the product robust and solid to reveal its innovative impact [12] on the respective market. In this stage, the company and individual analyse the broader innovative impact the product can have on the local communities. Thus, the democratic NPD team achieves to extend the understanding of the individual's situation to the broader context of the market.

In Level 5, the product is readily developed to compete in the local markets. Especially for the marketing and communication of the product, it is crucial to employ the individual's knowledge of how to reach best the respective customer base. After this point the organisation can elevate to the next and last level; Level 6., as the organisation has matured into an empathic entity and able to develop an understanding of a certain communal context. This allows applying the new knowledge gained to successfully sell the product across the region to markets that face similar product needs.

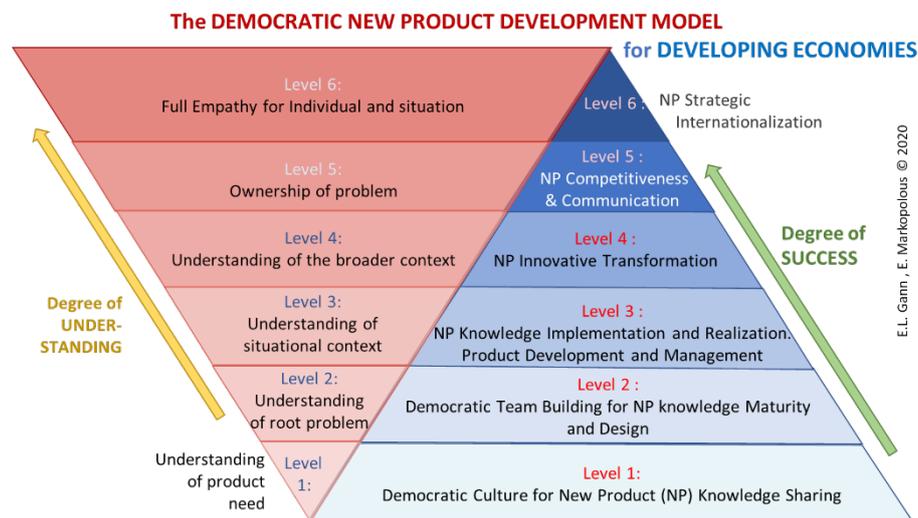


Fig.2. The Democratic New Product Development Model for Developing

The bilateral knowledge sharing dimension can be considered the added and shared value the model offers to the developing world. In many less developed countries, a good education is a rarity. As the company evolves through the six levels of the pyramid, the collaboration enables a two-sided learning experience; whilst corporates develop a better understanding of the developing markets, the individuals get the opportunity to learn internal processes and acquire basic business skills that can potentially lead to an offer employment opportunities (Fig. 3).

Level 1, of the Bilateral DeNPD model, where individuals and companies start the collaboration, they start to develop a basic understanding of one other's mission and vision.

The democratic team building process of Level 2, provides education to the individual on basic team-working principles, including communication, reporting, structures, and technologies.

In Level 3, when the product development moves to its conceptualisation, the individual can learn the standard internal product and project development process.

In Level 4, the innovative potential impact of the product is analyzed and the company can teach basic industry knowledge to extend the individual's understanding of the value that the product brings to the company and how it supports the corporate mission and vision.

Moving to Level 5, the individual can learn from the company's marketing department basic marketing principles and in return give feedback on how marketing will be perceived by the respective local market and suggest effective alternatives.

Lastly, in Level 6, the company can educate the individual on the distribution and sales elements, to close the product development cycle and conclude them with a holistic product development education. Here, the company can benefit from the individual's ideas on how to distribute products more effectively in a specific context.

In brief, by engaging in democratic product development, MNCs can derive local knowledge whilst at the same time offer an alternative form of education and employment opportunities to the local communities.

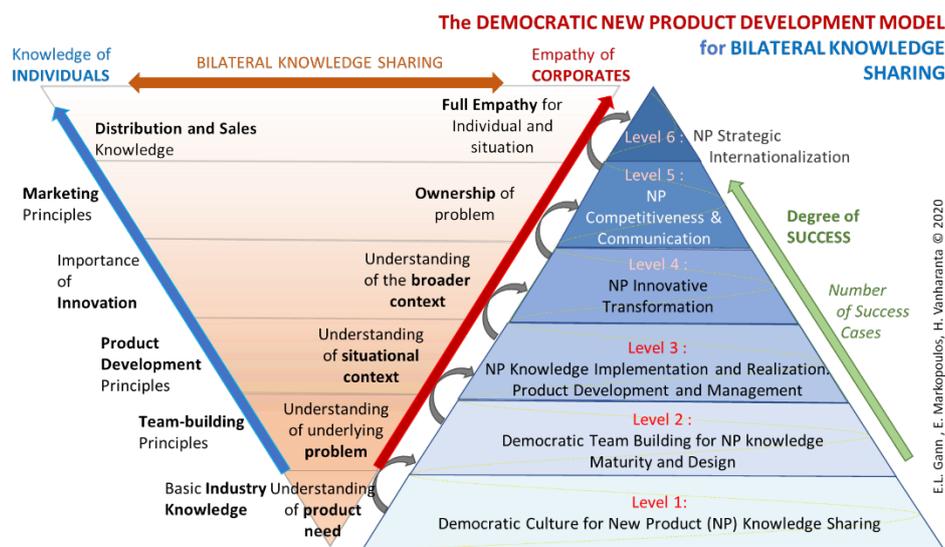


Fig. 5. The Democratic New Product Development Model for Bilateral Knowledge-Sharing

6. Transforming CSR & Achieving the SDGs

Non-compliant with Richard E. Smith's popular definition of Corporate Social Responsibility (CSR): "a business system that enables the production and distribution of wealth for the betterment of its stakeholders through the implementation and

integration of ethical systems and sustainable management practices” [13], many companies misuse this concept to fix their reputation. Therefore, companies create CSR campaigns fully unrelated to their mission and profit-generating activities, failing to properly integrate social and environmental concerns into their value chain. What compares to social greenwashing, is not only unsustainable out of an operational and financial perspective, but it is also not scalable [14]. The ESG index is a way for many companies to restructure their CSR strategies and reputation with more ethical management and meaningful social programs [15].

Using Bilateral knowledge-sharing companies can transcend profit-generating activities into corporate social responsibility activities without further investments and achieve the key four Sustainable Development Goals as defined in this paper (Table 1).

Table 1. SGDs achievement through the Bilateral Knowledge-sharing pathway

Sustainable Development Goals	Bilateral Knowledge-sharing pathway
SDG 1: No Poverty	Employ locals for product development efforts and beyond.
SDG 4: Quality Education	As part of the BiKS, locals receive a solid and practical business education.
SDG 8: Decent Work and Economic Growth	Through increased corporate empathy, MNCs can understand better how to employ local youth and therefore increase their opportunities and achieve economic growth.
SDG 9: Industry, Innovation and Infrastructure	By building the system of knowledge-sharing, innovation can stay within the border of the developing country, fostering industrial diversification, and growth.

7. Limitations and areas of further research

The proposed solution in this research indicates limitations the impact it can have under different circumstances related to the social, economic, and political situations that exist in each country. Thus, as an area of further research, studies could explore the differences between different developing markets, and the implications for the democratic new product development concept for each. With variables such as culture, education systems, and regulatory frameworks, it might be necessary to make different considerations regarding the application of the democratic new product development concept across different regions.

Further research can also be directed on the differences between emerging and developing countries, and how those impact the suggested solutions.

Lastly, more emphasis can be given to the proposed model to integrate the reverse innovation as an alternative way to utilize the local intellectual capital for new products and services that could be exported from the emerging countries to the western world through the MNCs [16]. This can potentially move the organization towards the concept geo-entrepreneurship where MNCs can innovate on different areas based on the expertise that exists in each country [17].

8. Conclusions

Multinational Corporations can achieve significant benefits from the democratization of their product development. Such an approach can facilitate knowledge-sharing and profit-sharing with the local communities. From a corporate perspective, this enables low-cost product development, whilst increasing reputational benefits and profits from the relevance of the products in the respective markets. From a local perspective, the workforce will be up-skilled and productivity will be increased, together with the GDP that can reflect this growth. Most importantly, such developments will happen sustainably and in full alignment with the Sustainable Development Goals, contributing towards achieving them by 2030.

This paper presented a bilateral-knowledge sharing model that supports Multinational Corporations to merge local knowledge with the expertise of their employees. Based on the Democratic New Product Development Model (DeNPD), this model uses the inclusion of externals into the corporate product development process as a source of idea generation. The Democratic New Product Development Model for Bilateral Knowledge-sharing allows companies to better understand the local culture and tie corporate social responsibility to product development. Including citizens in the product development process, MNCs can provide alternative education and employment at the same time. As a result, the innovation level, the per capita income, and that economic growth increase. The proposed model provides a way for the private sector to significantly contribute towards achieving the SDGs without dependence on governmental actions.

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