

CHAPTER 1: INTRODUCTION

Workforce Development in the Global Economy: LINKING SKILLS AND CAPABILITIES

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Workforce Development in the Global Economy: Linking Skills and Capabilities to Upgrading

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“Penetrating global markets, even in sectors that traditionally use unskilled labor, requires more skills than the poor in developing countries typically possess.”

Ann Harrison, 2007, *Globalization and Poverty*

In 2009, RTI International and the Duke University Center on Globalization, Governance & Competitiveness (Duke CGGC) convened a joint research program to help donors and developing country governments better understand the role and dynamics of workforce development in the context of global value chain (GVC) upgrading. Over the next two years, Duke CGGC led the exploratory research program in collaboration with RTI International on the role of workforce development policies and initiatives in the upgrading trajectories of key value chains. Our focus was on four industry value chains of high interest to developing country governments and international donors: fruit and vegetables, apparel, offshore services and tourism.

The research agenda was developed in response to increasing interest from developing country governments and donors alike, in effective methods to address poverty, unemployment and underemployment and upgrading the workforce skills and institutional capabilities needed for developing countries to participate and grow in a sustainable fashion in the global economy. Workforce training and development initiatives for the formal and informal sectors are often considered essential methods to provide expanded employment opportunities for targeted populations in economically relevant industries (Gill et al., 2000; Lall, 1999). There is also growing demand for national and sub-national institutions to formulate strategies for the alleviation of poverty and unemployment (especially among women and youth), and to improve access to economic opportunities and decent work for their populations (Altenburg & von Drachenfels, 2006; Marchese & Sakamoto, 2008).

In the context of the World Bank’s Skills Toward Employability and Productivity framework, workforce development refers to “building and upgrading job-relevant skills.” It refers to “a national,

regional, provincial or sector-based system that serves a dual function: enabling individuals to acquire technical knowledge, practical skills and attitudes for gainful employment or improved work performance in a particular trade or occupation; and providing employers with an effective means to communicate and meet their demand for skills... The former function is often associated with technical and vocational education and training (TVET), while the latter is associated with arrangements for employer involvement in workforce development at both the strategic and operational levels” (Tang et al., 2010, p. 2).

Consistent with the World Bank’s approach, we define workforce development as the process by which a territory’s initial endowment of human capital is converted, through education, training and relevant services such as labor market intermediation, exchange and information, into a source of competitive advantage for firms and industries in the territory. When this process is well-orchestrated through the combined efforts of governments, businesses, education and training providers and labor force intermediaries, employment in value-adding industries can provide pathways out of poverty through formal employment, career advancement and adequate social protections that are unavailable in informal economies and microenterprise-driven livelihoods.

In developed economies, a specialized, skilled workforce is among the most important economic development assets and targeted workforce development initiatives are common tools for enhancing local and regional economic competitiveness in the United States and Europe (Blakely & Green Leigh, 2009; Jacobs & Hawley, 2009). Among developing country governments and entrepreneurs, however, workforce initiatives may be viewed as the domain of social policy rather than as an enhancement to industry competitiveness. We believe this is an outmoded perspective. In an economic environment where outsourcing and offshoring are the norm in many manufacturing and service industries, workforce development is an integral element of both poverty alleviation and national competitiveness goals.

Value Chains and the Workforce

In the contemporary era of globalization, the development community’s understanding of the role of workforce development in the contemporary economy is increasingly structured around GVCs. The evolution of GVCs in sectors as diverse as agricultural commodities, apparel, tourism and business service outsourcing has significant implications in terms of global trade, production and employment and how developing country firms, producers and workers are integrated in the global economy. GVCs encompass the full range of activities required to bring a good or service from conception, through the different phases of production (provision of raw materials, input of various components, subassemblies, producer services and assembly of finished goods) and delivery to final consumers, and, finally, to

disposal after use. In the context of globalization, the activities that compose a value chain are generally carried out in interfirm networks on a global scale (Gereffi, 1999; Gereffi et al., 2005; OECD, 2011).¹

The GVC framework has been developed over the past decade by a diverse interdisciplinary and international group of researchers who have tracked the global spread of industries and studied the implications for corporations, countries and workers. By focusing on the sequences of value added, from conception to production to end use, GVC analysis provides a holistic view of global industries—both from the top down (e.g., examining how lead firms “govern” their global-scale affiliate and supplier networks) and from the bottom up (e.g., asking how these business decisions can add value to the industry in specific countries and regions).

Global value chains, by nature, are highly dynamic and globally competitive. Firms face increasing pressure from a growing number of producers and suppliers around the world and, to remain competitive, they must increase the skill content of their activities or develop competencies in niche market segments (Humphrey & Schmitz, 2002, p. 1018). In the GVC framework, this movement along the value chain is referred to as economic upgrading. Four types of upgrading have been identified, each of which requires differing levels of firm learning: *process upgrading*, which transforms inputs into outputs more efficiently by reorganizing the production system or introducing superior technology; *product upgrading*, or moving into more sophisticated product lines; *functional upgrading*, which entails acquiring new functions (or abandoning existing functions) to increase the overall skill content of the activities; and *chain or inter-sectoral upgrading*, where firms move into new but often related industries (Humphrey & Schmitz, 2002). Upgrading is imperative, not only to capture increased value within these global industries, but ultimately to survive within the industry. This places new competitive conditions on host-country industries for participating in international trade and has significant implications for workforce development.

The majority of current workforce tools were conceptualized prior to the widespread adoption of value chain strategies by development stakeholders. Beginning in the late 1990s, the International Labor Organization (ILO) initiated an important body of research and practice on demand-driven workforce development for local industry needs (International Labor Organization (ILO), 1999, 2001, 2003). Subsequently, the Global Workforce in Transition (GWIT) IQC, which ended in 2007, modernized the U.S. Agency for International Development’s (USAID’s) approach to workforce development, promoting market-responsive, demand-driven training in partnership with the private sector. Much of USAID’s work

¹For more background on the GVC perspective and related publications, see the Global Value Chains Web site: <http://www.globalvaluechains.org/>.

under GWIT was heavily influenced by local cluster-based industry development approaches, which have since been replaced to a large extent in the development community by GVC approaches.²

This is a profound change because cluster-based perspectives on economic development were focused principally on local institutions and interactions. In contrast, the GVC approach incorporates important insights into the global relationships in which local interactions are embedded—particularly relationships between small and medium enterprises and the “lead firms” that structure their access to final markets (Frederick & Gereffi, 2009). These two approaches differ not only in terms of how countries and firms engage in and are interconnected through international trade, but also with respect to what is traded and the requirements for entry into increasingly global industries. Some key differences in the approaches to economic growth of these two perspectives, and their potential implications for workforce development, are contained in *Table 1.1*.

Table 1.1. Comparison of Cluster and GVC Perspectives and Implications for Workforce Development

	Cluster-Based Perspective	GVC Perspective	Workforce Implications
Trade	Trade in finished goods	Trade in “tasks” (activities) and intermediate goods	Process-based knowledge and skills rival product-based knowledge
Networks	Dense networks of local firms	Production networks “controlled” by lead firms	Increased importance of managerial learning from global sources
Participation	“Organic” participation in clusters by all firms	GVC participation requires deliberate “choice”	Knowledge of position in and trajectory of upgrading provides insight into skill requirements
Norms and regulations	Local norms of cooperation	Compliance with international standards	Rising importance of training to comply with new product and process standards and internationally recognized certifications
Barriers to entry	Low barriers to entry for locally improved products	Commercial and product standards constitute high barriers to entry for developing country firms	Lead firms as gatekeepers to enforce skill requirements and product quality; international partnerships
Geography	Geographically concentrated production of related goods and services	Geographically dispersed production of intermediate goods and final products	Reduced access to “tacit knowledge” about industries

Source: Authors.

These are important differences in how these two approaches see the world. The cluster-based perspective was based on the premise that locality matters and that regions play an important role in economic development, not only in the economically advanced countries of the world, but also in low-

² Recently, USAID has adopted the value chain framework to reorient its Enterprise Development strategy around the concept of Value Chain Development (see the wiki pages created to introduce the new value chain approach: http://apps.develebridge.net/amap/index.php/Value_Chain_Development).

and middle-income countries (Piore & Sabel, 1984; Porter, 1990). Within clusters, local enterprises were knit together in dense networks that supplied most of the goods and services used to make finished products, and public authorities played a key role in helping to develop supporting institutions, including those that provided education and training for the local workforce. The GVC perspective reanalyzed the role of clusters and regions in the context of globalization, and highlighted the need for local economic development strategies to deal with intensifying global opportunities and threats. GVC research brought fresh insights to how and why insertion in GVCs can accelerate or inhibit local upgrading (Schmitz, 2004; Staritz et al., 2011), but it also challenged relatively static and localized conceptions of enterprise strategies and workforce development.

Value chain practice has become the *sine qua non* of enterprise and industry development in recent years, and it is now being applied to a broad range of related fields, including corporate social responsibility, gender, food security and poverty reduction, in addition to enterprise and industry development (Memedovic & Shepherd, 2009; van Tulder, 2009; van Tulder et al., 2009). With the exception of recent work by Duke CGGC (Fernandez-Stark et al., 2010; Wadhwa et al., 2008), however, there is almost no literature on workforce development in the context of GVC upgrading, and there is not a widely accepted methodology for understanding the role of public and private workforce interventions in value chain upgrading.³ The conceptual framework for workforce development offered by World Bank views the system as comprised of training as well as the information, coordination and relationships that permit effective matching of skills to jobs, resulting in faster growth and “progression up the value chain” (Tang et al., 2010). However, the importance of lead firms and their value chain governance strategies that structure developing countries’ upgrading options are neglected in this framework.

There are a number of possible explanations for this omission in the literature. First, the analytical origins of value chain development practice are derived from the study of global industrial organization rather than from territorial or regionally based approaches, while workforce policies are typically place-based. Second, value chain development research has, until recently, tended to focus on micro, small, and medium enterprises (MSMEs),⁴ which are unlikely to reach the scale of employment or formality necessary to justify large-scale investments in workforce development. Third, where workforce initiatives are discussed, value chain practitioners have tended to focus on proprietary methods of skill development, including embedded training services provided by buyers and equipment suppliers, and in-house training provided by multinationals (Wadhwa et al., 2008). Finally, the importance of workforce initiatives varies

³ An ongoing research project on “Capturing the Gains: Economic and Social Upgrading in Global Production Networks and Trade” funded primarily by the United Kingdom’s Department for International Development (DFID) is addressing a much broader set of upgrading issues in the context of the GVC framework. See <http://www.capturingthegains.org/>.

⁴ This is especially true for donor agencies, such as USAID.

across industry/value chain contexts. Workforce-focused initiatives alone cannot catalyze value chain upgrading without motivated firms and entrepreneurs, access to capital, or linkages to customers or markets.

However, now that GVC methods are being used by donors to pursue a wider variety of goals, including upgrading of larger firms and more formal industries,⁵ it is worth revisiting how place-based public and private workforce initiatives can be most effectively configured in the context of these interventions.

Directions for Research

GVC analysis can provide useful insights to better adapt workforce-focused interventions to actual situations and, as a result, can support both the economic aspirations of targeted populations and improved participation of businesses in the global economy. However, this approach should be sector specific and dynamic in its orientation.

A key feature of GVC analysis is that it operates at a meso- (or industry) level, between the macro-factors that affect the global and national economies and the micro-level focus on firms, workplaces and communities. While most value chain studies highlight the governance structures and upgrading (or downgrading) trajectories of particular industries, the contributions of the value chain approach to development can be enhanced by analyzing in greater detail the national and local institutional factors and workforce interventions that can become place-based drivers for competitiveness. There are several reasons for this.

First, employers' demand for skilled workers is dynamic, and its change is intimately tied to the trajectories and pace of economic upgrading. The GVC approach provides a useful framework for exploring this progression across a diverse range of value chains, including agricultural, manufacturing and service-oriented industries. Upgrading trajectories—while not mechanistic or automatic—follow recognizable patterns that can be identified through GVC case-study research based on the experiences of countries at different levels of development. Typically, there are multiple pathways, sequences and entry points for developing economies in any given industry.

Our GVC approach to workforce development links industry-specific trajectories of economic upgrading to the most important workforce development requirements at each stage of the upgrading process. Understanding specific cases of value chain upgrading, such as Chile's emergence as an important global supplier of processed fresh fruits and vegetables or the Philippines rapid evolution as the

⁵ The World Bank has commissioned a series of value chain studies for its project "Global Value Chains and the Crisis." See, for example, Gereffi and Frederick (2010), Gereffi and Fernandez-Stark (2010), and Cattaneo et al. (2010). Also see World Trade Organization and IDE-JETRO (2011).

leading call center destination in the world, help to situate workforce initiatives in the context of realistic and attainable upgrading trajectories through which developing countries have succeeded. Better knowledge of these upgrading trajectories across a range of industries and countries sheds light on future skill demands as well as the complementary policy instruments and business competencies that are required for sustained upgrading as industries transition to higher-value activities.

Second, GVC analysis incorporates a wide range of actors and stakeholders (public, private, quasi-public), as well as geographic scales ranging from the local, sub-national, national and global (without necessarily favoring one over another). In our research, we have paid particular attention to the role of various labor-market intermediaries that seek to provide the right mix of approaches to training and skills development to enhance upgrading opportunities.

Finally, the GVC perspective helps to shed light on the role of training standards and product and process certifications in helping developing country workforces obtain greater skill portability, better working conditions and potentially more productive integration into the world economy.

Research Methodology

The main goal of our research was to explore how workforce development within the value chain can foster or hinder the upgrading potential of developing countries. In particular, we seek to understand how to enhance labor assets in developing countries, and in turn to assist governments and donors alike in determining which human resource/workforce investments are most appropriate to facilitate attainable economic upgrading (which may vary considerably across value chains), and what complementary investments have, in the past, successfully facilitated the upgrading of GVCs across the spectrum of industries of high interest to developing economies.

In order to better understand the relationship between industry upgrading and workforce development, we studied four major, dynamic global industries in developing countries: fruit and vegetables, apparel, offshore services and tourism.⁶ These labor-intensive industries are drivers of economic development and poverty reduction in emerging economies. In each of the industries studied, we selected a number of countries for comparative analysis that represent different stages of industry development and cover a broad range of regional and cultural contexts as well as levels of economic development:

⁶ In order to select the industries for this study, leading development agencies, including the World Bank, the International Labor Organization and USAID, were approached and asked to provide a list of their priority economic sectors.

Table 1.2. Industries and Countries Selected for Analysis

Industry	Countries
Fruit and Vegetables	Chile, Honduras, Jordan, Kenya and Morocco
Apparel	Bangladesh, Lesotho, Nicaragua, Sri Lanka and Turkey
Offshore Services	Chile, India, Philippines and Spanish Speaking Central American and Caribbean countries
Tourism	Costa Rica, Jordan and Vietnam

Source: Authors.

The research was carried out in three main steps:

- (1) the structure of the GVC for each industry was mapped out in terms of its principal activities, value adding stages, and lead firms;
- (2) individual developing countries that varied in their level of upgrading within each industry were identified and analyzed in order to show the main challenges at entry, middle and high levels of upgrading; and
- (3) the role of workforce development initiatives in each of these developing country upgrading stages was analyzed and compared.

These analytical steps allowed us to illustrate how these global industries operate, what upgrading requirements and opportunities are available for developing countries, and they provided a context to evaluate how workforce development components may contribute to or hinder the industry's success. The information collected for these reports is based on both primary and secondary sources. Due to limited resources, mostly secondary sources were used, complemented by interviews and limited field research in select countries and industries.⁷

The key questions we explored include the following:

- In each of our selected industries, what are the lead-firm requirements and global best practices for suppliers from developing countries that participate and are at least moderately successful in these GVCs (as measured by sustained exports to developed country markets)?
- In cases of value chain upgrading in agricultural, manufacturing and service industries, what roles have national and sub-national workforce development institutions or initiatives played (supporting/catalytic/other)?

⁷ It should be noted that while the project examines which workforce development initiatives were employed to facilitate upgrading, impact assessments and evaluations of the effectiveness of individual training programs were not conducted. The inclusion of a program should not be considered an endorsement of its success.

- What are the most effective roles and best practices of the public (national and sub-national) institutions in workforce development to stimulate value chain upgrading at each stage?
- How do the requirements of these roles differ based on the type of upgrading strategy pursued by businesses (e.g., product/process/functional) and/or on the stage of upgrading?
- What is the division of roles between the public and private sector(s)? How have developing country governments and the private sector successfully engaged around workforce development to support upgrading? What are promising practices from recent upgrading events?
- What skills are required of local actors to work with global companies?
- How do industry standards (e.g., product and process standards in terms of quality and product safety) impact worker skill requirements, and what instruments available to stakeholders (i.e., professional certifications or global skill standards) can assist in helping meet these standards?

Through this project, we are using a GVC perspective to move our existing models of workforce development beyond a traditional (exclusive) focus on education and skills training, and to outline new roles for workforce development in industry upgrading and competitiveness in the contemporary economy. The final chapter of this book summarizes our findings, drawing attention to commonalities across industry case studies and stages of upgrading. We offer a set of recommendations to donors and development agencies to formulate more efficient and timely workforce development initiatives that will enhance economic as well as social upgrading.

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