BUSINESS COMPETENCIES FOR THE KNOWLEDGE AND INNOVATION ECONOMY

Toward the Sustainability of Central American SMEs

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Business competencies for the knowledge and innovation economy: Toward the Sustainability of Central American SMEs

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BUSINESS COMPETENCIES FOR THE KNOWLEDGE AND INNOVATION ECONOMY

Toward the Sustainability of Central American SMEs

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The productive sector of the Central American region is characterized by an abundance of small-scale businesses (micro, small and medium companies), generally of low productivity and often motivated by a need for survival rather than authentic entrepreneurial vocation. The gravity of this reality is obvious when we consider that the micro and small companies alone exceed ninety percent of all the economic units in existence in most of the subregion’s countries. Most of them are concentrated within traditional, low-productivity sectors such as commerce and services, generating precarious jobs.

In this context, the Avanz@ project was conceived as a research project with two objectives:

1. Identify the key competencies required by Central American SME entrepreneurs to aim for added value and continuous improvement, efficiency, ongoing learning and environmental sustainability within the framework of emerging social and economic development models.

2. Generate approaches and tools to strengthen the building of these competencies.

The Avanz@ project was developed jointly (between 2011 and 2013) by the Omar Dengo Foundation (www.fod.ac.cr) and the Inter-American Centre for Knowledge Development in Vocational Training of the International Labour Organization (ILO/CINTERFOR) (www.oitcinterfor.org) with the financial support of the Canadian International Development Research Centre – IDRC (www.idrc.ca). Three countries participated in the study: Costa Rica, El Salvador and Nicaragua. In each one a local research team was formed under the general coordination of the Research Unit of the Omar Dengo Foundation. The team was made up of researchers in the areas of economics, psychology, sociology and pedagogy and supported by an invaluable group of experts in statistics, business administration, technology and innovation.

The research methodology consisted of an exhaustive review of literature on the characteristics of the knowledge and innovation economy and its main challenges for entrepreneurs, followed by a survey of behavioral indicators linked to key competencies through focus groups, interviews of entrepreneurs and consultations with experts in the three participating countries. Lastly, a psychometric study was conducted with the business populations of the three countries to obtain evidence of the effectiveness of an indicator-based instrument and its articulation at different performance levels.

The project’s main results are the Framework of Competencies for Leaders of Central American SMEs in the knowledge and innovation economy and a set of digital tools for building those competencies. These results constitute a valuable contribution to the development of policies for strengthening training processes and business development.
EXECUTIVE SUMMARY

1. If companies wish to achieve sustainability of their business over time, the new challenges imposed by the knowledge and innovation economy must be taken on by the business class as part of the new global economic scenario, rather than just a variable that may or may not be considered.

2. The Framework of Competencies for Leaders of Central American SMEs in the Knowledge and Innovation Economy indicates the competencies that help entrepreneurs aim for added value and continuous improvement, efficiency, ongoing learning and environmental sustainability within emerging social and economic development models.

In recent years, the low-productivity, relatively uncompetitive economic units predominating in Central America have met with a new challenge: a new economic scenario that demands increasing quotas of innovation, digitalization, internationalization and efficiency to subsist within the context of open economies inserted into the world economy. The economy of knowledge and innovation is the particular stage of economic development that responds to a new dynamic based on knowledge as the main driver of competitiveness. This setting may be causing a dangerous widening of the gap between those who are well integrated and those who are not.

Competencies are a set of skills, knowledge and attitudes mobilized by an individual to attain positive results in the face of current demands in the environment. A framework of competencies is a tool for their development, classification and recognition. In this case, the competency framework is structured on the basis of 5 strategic dimensions of the economy of knowledge and innovation that have special strategic value for Central American SMEs wishing to enhance their economic potential:

- innovation
- ongoing learning
- networking
- corporate social responsibility
- results-oriented management

Although the referent of this competency framework is essentially the business entrepreneur, it is not an exclusive model for companies led by a business entrepreneur. SME business people who are not also entrepreneurs can also develop these competencies in order to become competitive, stay in the market and even expand their market share.
SME performance is related to the competency level of the person heading the company, and this is associated with how frequently the entrepreneur gets training and how intensely information and communication technologies are used.

Research during the Avanz@ project found a statistically significant correlation between the entrepreneurs’ competency level for the knowledge and innovation economy and the average annual sales of their companies. Another result from the entrepreneurs surveyed is that the factors that have more weight in the level of these competencies are the use of digital technologies in the company and the frequency of training. Educational level, gender, age and experience as leaders or managers of a company, however, do not influence the competency level of the entrepreneurs, nor was a relationship found between the age of the firm and whether or not it does business in international markets.

The project has generated a learning path for entrepreneurs or those in leadership positions in SMEs to follow for building strategic competencies in the knowledge and innovation economy that are useful for anyone involved in the formulation and implementation of SME support programs.

Competencies for the knowledge and innovation economy can be learned. A learning path exists that shows how to progress from the most basic competencies for the knowledge and innovation economy to the most sophisticated ones. A diagnostic tool makes it possible to place each person according to their current level and identify the next step towards which they can move. These tools facilitate the design of training strategies and proposals that can help employers embrace these competencies.

Business Competency Development Levels for the Knowledge and Innovation Economy

- **Level 1:** Planning
- **Level 2:** Research and Testing
- **Level 3:** Consolidation and Continuous Improvement
- **Level 4:** Interaction and Outreach
- **Level 5:** Leadership
CHALLENGES FOR OUR SMEs IN THE KNOWLEDGE AND INNOVATION ECONOMY

The knowledge and innovation economy is a particular stage in economic development which is part of a new dynamic based on knowledge as the main driver of competitiveness.

In this increasingly competitive, dynamic and globalized economic scenario, smaller companies need to mobilize quickly to consolidate and keep up with the market. However, the overall Central American panorama is still one of low productivity and low economic growth rates, causing its international competitiveness to stagnate. For the region to transition to higher levels of production, it needs to generate new sources of productivity to diversify its economy and enable it to move towards higher added-value activities (Schwab, 2013).

Not only does this imply maintaining and reinforcing the effort to strengthen basic aspects of competitiveness such as infrastructure, institutions, democracy, macroeconomic stability, and the business environment, among others. It also means paying more attention to building capacities in the population and strengthening technological ownership, innovation and transformation of the economic structure (Acs and Amorós, 2008, ECLAC 2009, 2010; Schwab, 2013). Below are some of the main challenges for the Central American region and its SMEs.

BUILD CAPACITIES OR COMPETENCIES

The first challenge is to develop capacities and competencies in people and companies for taking advantage of new opportunities and adopting a future-oriented approach that prepares them for change. In particular, the SMEs require competencies that enable them to improve the quality of their operations and strategies (design and production of unique and sophisticated products, advanced and efficient production, marketing and distribution processes, etc.). This implies improving the quality of educational systems, increasing training efforts within companies and for the workforce in general, and continuously monitoring the competencies that will be required in the future.

INCREASE TECHNOLOGY APPROPRIATION

The second challenge has to do with the ability to leverage existing technologies, especially those related to information and communication. These technologies are a key factor for companies to be able to compete and consolidate in the market. However, SMEs continue to face major challenges in terms of their ability to access, absorb and use cutting-edge tools in their daily activities and production processes.

STRENGTHEN INNOVATION

Possibly the most strategic innovation for SMEs is that which is aimed at improving production processes and the quality and added value of their products and services. Such innovation depends on the existing knowledge, skills, conditions and work dynamics within the companies. It requires an ongoing process of learning, change and restructuring in order to keep up with customer and market needs.
EXPAND BUSINESS NETWORKS

Another challenge regional SMEs are facing concerns new ways of interacting with customers, suppliers, the government and other agents, as potential allies in more complex processes and as a source of complementary skills. The new economic environment requires companies to expand their networks, devote more time to maintaining and reinforcing them, and in many cases provide them with greater formality. By partnering with other companies they can reduce costs, access markets, incorporate high-productivity technology, and choose new knowledge sources, among many other advantages (Dini, 2010). Nonetheless, the construction of business networks remains a complex aspect for regional SME entrepreneurs.

UNDERSTAND THE IMPORTANCE OF SUSTAINABLE COMPETITIVENESS

The need to integrate the concept of sustainability in our development strategies is becoming more and more evident. The World Economic Forum has coined the concept of sustainable competitiveness to refer to competitiveness that allows a country to remain productive over the long term while ensuring environmental and social sustainability (Schwab, 2013). Another associated concept is corporate social responsibility (CSR), already relatively accepted in large companies, but now of increasing interest for SMEs. However, small companies have little information about what CSR might entail and often discard it as being a significant monetary investment, without taking into account the economic benefits CSR activities could furnish.
STRATEGIC DIMENSIONS OF THE KNOWLEDGE AND INNOVATION ECONOMY

There are five dimensions of the knowledge and innovation economy with particular strategic value for Central American SMEs wishing to enhance their economic potential.

These dimensions were identified by triangulating the theory, the contributions of entrepreneurs and experts, and the analysis and input from the research team in charge of the project. They are important aspects the SMEs should incorporate in order to face the challenges posed by globalization and the knowledge society and take advantage of the opportunities generated by them. Being stronger in these areas makes companies better able to cope with the constant change, uncertainty and growing business complexity that characterize current economic dynamics.

The five dimensions do not operate in isolation from one another. They interact systematically and holistically with the entrepreneur’s behavior.

Companies that are better prepared to evolve in these dimensions are led by entrepreneurs, that is to say, those who are constantly seeking innovation in their business or looking for new business. However, this appetite for ongoing innovation and entrepreneurship can be gradually learned and developed. Knowing and practicing these dimensions may therefore be of interest to all SME entrepreneurs, regardless of their level.

**INNOVATION**
A deliberate and ongoing process to foster the development of new ideas for products, processes or management models that differentiate the company from the competition, generate value for customers and contribute to the company’s sustainability.

**ONGOING LEARNING**
An ongoing process of seeking, processing, applying and sharing useful knowledge for improving the company in terms of market competitiveness and compliance with its social responsibility.

**NETWORKING**
The establishment of relationships between the company and its environment based on cooperation and the sum of complementary contributions from entities aligned around a common purpose.

**CORPORATE SOCIAL RESPONSIBILITY**
The development of business management according to the criteria of economic, social and environmental sustainability and accountability to society.

**RESULTS-ORIENTED MANAGEMENT**
Ongoing planning, implementation and evaluation of business activity, aimed at business sustainability in contexts characterized by change, uncertainty and increasing complexity.
Innovating is creating something new that generates value for both the customer and the company—something new that is more valuable or useful than what already exists. It therefore does not necessarily mean creating a new product or service. There are many facets of the company’s activity where there can be innovation. The innovation can involve improving an existing product or service, customer service, production processes, product distribution channels, or the company’s own organization.

The important thing in innovation is introducing a change that leads to generating new value for both the customer and the company. For the company, this value will be reflected in higher productivity (at the same cost or, better yet, at a lower cost) or higher sales. For the customer, value means more benefits and satisfaction with the purchased product or service.

Innovation of products and services, then, comes not only from the application of scientific and technological knowledge obtained from research and development. It can also be derived from the production and use of the tacit knowledge of an organization’s individuals, knowledge stemming from their practical skills, experience and interaction with others. This is why we say innovation is not something only large companies can afford; it is also within the reach of SMEs.

This last aspect of innovation is closely linked to learning within organizations, which is another dimension of the knowledge economy, and to their ability to absorb and adapt external and internal knowledge and transform it into a result with higher productivity and innovation. Ongoing learning and innovation are complementary; innovation requires ongoing learning and ongoing learning is precisely for innovation.

For innovation to become an integral part of the company’s work the owner or manager must first believe in the importance of elevating innovation to a strategic position within the company.

This involves establishing an organization or structure around it that makes it sustainable over time. The most effective innovation is one that comes out of a deliberate process sustained over time, based on the innovation cycle:

1. Identify customers’ unmet needs, their current wishes and any desires they may be unaware of but that will be needs in the short run.
2. Generate ideas to meet those needs.
3. Select the idea that has the greatest potential and is most in line with the company’s goals and strategy.
4. Develop the innovation concept or prototype (and a business model that makes it sustainable or a rethinking of the value chain followed by company processes).
5. Produce or implement the innovation.
6. Place the innovation on the market.

Key Innovation Activities for Companies:

- Research the environment and customers to identify ideas with potential for creating value for customers and the company
- Generate ideas that add value for customers and the company
- Materialize innovative ideas, making the necessary changes in the process chain and mobilizing the required resources
- Foster innovation as a process of ongoing improvement aimed at fulfilling the company’s vision and overriding goals
In the knowledge and innovation economy, ongoing learning should be part of the company culture, as it allows for something that is essential in today’s world: expanding, reviewing and improving the company’s ways of thinking and operating the company in order to attain greater effectiveness and adjust to the changing environment. A company that is not continuously learning is a company putting itself at risk of disappearing.

Integrating ongoing learning into the company culture requires establishing a habit of continuous training. This means continuous monitoring of the learning needs of the company and its employees and the planning of actions to adequately meet those needs. Sometimes this will involve training processes, other times it will entail seeking expert advice, and in most cases it will mean relying on self-education or peer-to-peer knowledge exchange.

Ongoing training is closely associated with the competencies of entrepreneurs. Entrepreneurs with higher levels of key competencies for the knowledge and innovation economy are those who receive training several times a year.

Nonetheless, nowadays training is not the only strategy in which SMEs should invest to meet their knowledge needs. Entrepreneurs need to develop their capacity to manage information themselves, that is to say, locate, assess and make effective use of valuable information for their business. In a world like ours, characterized by an overabundance of information, this means locating critical information for the business, verifying its reliability and relevance, analyzing and extracting guidance and ideas that can be applied or shared, and doing it quickly and effectively.

Equally important is the ability to learn from experience, which involves monitoring and analyzing one’s own performance to identify successes and failures, and improving from a study of the causes and factors associated with the latter.

In companies with multiple employees, leaders need to establish organizational and operational systems to create an ongoing learning culture within the organization. Importantly, spaces will be required for fostering and facilitating the exchange of information and knowledge by means of regular meetings for interaction among employees and for providing documents, reports and any other information that may be useful.

Finally, one aspect of increasing value for SMEs today is the ability to interact and exchange knowledge with external stakeholders. For many entrepreneurs this entails overcoming resistance resulting from personal shyness and the lack of a culture of sharing with other companies.

Key Ongoing Learning Activities for Companies:

- Encourage ongoing learning opportunities in the company
- Obtain relevant and reliable information
- Extract lessons learned from one’s own experience
- Build interest among the team of employees to learn constantly
- Promote the sharing of knowledge within the company
- Share knowledge with people outside the company
At different times in the production and supply process, companies come into contact with a large number of stakeholders: suppliers, customers, carriers, finance institutions, government agencies, trade associations, and business competitors, among others. Viewing these relationships as networks of cooperation contributes to strengthening companies’ competitiveness because it allows them to access resources they initially lack and jointly address common challenges. In the new economy, collaborating, developing chains, and sharing information and knowledge becomes a strategic way to project the company, insert it into higher-value chains and create new business opportunities.

Networking can take different forms, from informal contacts and specific collaborative efforts to more formal partnerships, committed and durable over time. Networking consists of establishing and maintaining potential business contacts of benefit for the company, encouraging interaction and exchange of information. It is expressed in the company’s participation in trade fairs and business events, social networking, and membership in business groups to stay up-to-date on what is happening in the industry.

Another form of networking consists of carrying out joint actions that are not necessarily mediated by formal agreements but that solve immediate problems or obtain a common benefit, for example, achieving technical assistance that benefits all participating companies or jointly facing obstacles that affect the entire sector. This type of collaboration often occurs in the context of active participation in a business group.

The most formal method of networking is a strategic partnership: an agreement between two or more companies to achieve common goals by sharing resources. A strategic partnership may be the answer if a company needs to be more efficient in their use of resources or lacks the resources needed to improve their competitiveness. For example, a company that lacks a specific marketing channel can enter into a strategic partnership with another company that has it in order to avoid having to develop it by itself, which would require substantial investment and time, and to get to market faster. Other examples are to develop joint production processes to supply a specific customer or to join the supply chain of a multinational company, becoming part of a production chain.

These possibilities require building capacities that are not often present in today’s regional business environment, such as, for example, knowing when a strategic partnership should be sought and why, determining the type of partnership required, identifying the contribution to be made in exchange for what is required of the other company, and foreseeing difficulties that may arise and how to address them.

While networking has the potential to help companies stay afloat and grow, it is not yet a common practice in our context. It is not easy to make alliances, because you have to invest in establishing relationships of trust and negotiate, coordinate and adjust to the differences between companies. As seen below, the competencies associated with networking are located at the highest and most sophisticated levels of entrepreneurial competencies for the knowledge and innovation economy.

Key Networking Activities for Companies

- Interact with contacts of interest to the company
- Suggest activities to carry out in conjunction with other companies or organizations
- Negotiate the terms of the partnership from the perspective of mutual benefit
- Align business relationships with ethical principles
- Coordinate work with partners
There is an increasing consumer demand for products and services that include the concept of social and environmental responsibility. This demand impacts the strategy that companies follow to gain customer loyalty and pushes them to reconnect business success with social progress and sustainability.

A sustainable company is one that creates economic, environmental and social value in the short, medium and long term and contributes to the well-being and real progress of present and future generations in both their immediate environment and the world in general (Sustainable Business Forum, 2002).

Traditionally, corporate social responsibility has been associated with philanthropic activities, for example, awarding grants to humanitarian organizations, individuals and communities in difficult circumstances to help improve living conditions. Today, however, corporate social responsibility is understood as the creation of shared value for everyone involved in the company’s activity: customers, suppliers, the community and, of course, the company itself (Porter and Kramer, 2011).

Thus, the concept of corporate social responsibility involves three types of aspects:

- **Aspects associated with the sustainable development and mitigation of its negative impacts on the environment and preservation of the environment in general, including, among other things, energy saving.**

- **Aspects of business ethics such as respect for contracts and the struggle against corruption, among other things.**

- **Social aspects, such as supporting the development of the community in which the company operates, improving the working and living conditions of its employees, and building relationships with suppliers who share the company’s philosophy, among other things.**

The positive effects of corporate social responsibility are greater when born of a genuine and sustained commitment and inserted into the entire business strategy. However, a gradual phasing-in is advisable for introducing this new company development strategy. A first step in this process is to enforce existing social, tax and labor legislation: pay the wages established by law, duly pay employer social security contributions, strictly adhere to occupational health and safety standards for workers, and pay the corresponding taxes. From this minimum prerequisite, the company must undertake a process of gradual introduction to the concept and activities of corporate social responsibility.

It is important to keep in mind that starting this task does not necessarily involve large investments of money and resources by SMEs. On the contrary, the economic benefits for firms exercising corporate social responsibility are more and more evident in terms of increased sales and increased competition resulting from the projection of its social and environmental responsibility towards society in general.

**Key Corporate Social Responsibility Activities for Companies:**

- **Structure the business strategy from a sustainability perspective**
- **Guide the team towards responsibility to society and the environment**
- **Implement sustainable practices in the company’s processes**
- **Develop community outreach practices that create shared value for the community and the company**
- **Disclose the company’s corporate social responsibility strategies**
Guaranteeing the company’s sustainability in a context of change, uncertainty and increasing complexity of business involves setting and having clear objectives (goals or expected results), having a clear idea of how those goals or results will be achieved (the strategy), and having the capacity to achieve them (the required resources).

Results-oriented management consists of organizing the company around a joint and systematic task to achieve the company’s objectives, that is, organizing the company’s management for meeting the goals that have been set and ensuring that they are achieved. In the process of achieving those goals a strategy should be applied, and there should be capacities for implementing the strategy and being able to meet the proposed goals.

This involves developing appropriate team management. The entrepreneur needs to be a leader capable of forming a team of people with the right talents and placing them in the right jobs, as well as knowing how to motivate and guide them into doing their best and taking on new challenges.

Also important is to have systems in place for monitoring and evaluating the company’s overall performance and specifically its achievement of goals. This makes significant inputs possible, facilitating analysis and decision-making for timely improvements. In today’s context, another essential factor is customer service. This entails maintaining quality standards for products and services in line with customer expectations, but above all it entails treatment exceeding their expectations.

Finally, another key issue for a results-oriented business approach is the incorporation and use of digital technologies as a supporting tool for management, administration and production. Entrepreneurs need to know about available technologies and their scope and maintenance costs in order to decide which are ideal for the company’s specific needs and available resources for this investment. It is also necessary to develop business competencies in order to take maximum advantage of these technologies for the company’s communication and dissemination as well as its administrative management.

Key Results-oriented Management Activities for Companies:

- Clarify the company’s defining identity or philosophy
- Specify a bold and challenging goal to achieve in the long term
- Form your team with the right employees in the right jobs
- Design work systems aimed at achieving company goals
- Progressively develop the most appropriate strategy for achieving the company’s goals
- Continuously monitor the company’s performance to guide decision-making
- Provide a service or product that exceeds customer expectations
- Decide on the possibilities of using digital technologies according to the company’s characteristics
- Leverage digital technologies as a means of company communication and dissemination
- Take advantage of digital technologies in the company’s administrative management
BUSINESS COMPETENCIES FOR THE KNOWLEDGE AND INNOVATION ECONOMY

The business competency framework proposed by the Avanz@ project intends to be a reference for the competencies required by Central American SME entrepreneurs to successfully face the challenges of the knowledge and innovation economy.

Several proposals exist in European countries of business competencies and entrepreneurial competencies (Kaplan, 2010; Lans and Mulder, 2009; Lans et al, 2008; Lans et al 2010; Buschfeld et al, 2011; Man et al. 2002). Various empirical studies have also been conducted in different fields analyzing the qualities of successful entrepreneurs (Van der Laan et al, 2010; Dominguez et al, 2010.). However, although some of these competencies are relevant to the knowledge and innovation economy and have even been formulated as e-competences (Marinoni et. al, 2011); their relevance and particular practicality for Central American entrepreneurs needs to be studied.

The Avanz@ project was thus proposed to build a reference framework of competencies required by Central American SME entrepreneurs to successfully face the challenges of the knowledge and innovation economy and to generate guidelines for learning and developing these competencies.

## Competencies

The set of skills, knowledge and attitudes used by an individual to achieve positive results in the face of current environmental demands.

### Competencies for the knowledge and innovation economy

Competencies that allow entrepreneurs to move towards added-value and continuous improvement, efficiency, ongoing learning and environmental sustainability in the context of emerging economic and social development models.

## Five components of the competency framework:

1. **Briefly defined dimension of the knowledge and innovation economy** (elaborated by authors)

2. **Key competencies for each dimension**

3. **Key activities to be carried out that are associated with each competency**

4. **Performance criteria for each activity** (different ways of carrying out each key activity with different quality levels)

5. **Know-how associated with each dimension** (key knowledge, procedures and attitudes)

A competency framework is a tool for the development, classification and recognition of competencies. It allows for structuring competencies and their descriptions by type and level, establishing interconnections between them. In this case, the competency framework is structured around the five strategic dimensions of the knowledge and innovation economy mentioned in the previous section: innovation, networking, ongoing learning, results-oriented management and corporate social responsibility.

For each of these dimensions key competencies are proposed for development. However, we know that in practice these dimensions exist and act interdependently. They are being separated only for the purpose of accurately analyzing the specific efforts required for putting these competencies into practice.

It should be noted that although the framework focuses primarily on entrepreneurs, it is not just a model for cutting-edge enterprises. This competency framework can be of value to entrepreneurs who wish to take their business to another level.
How was the business competency framework for the knowledge and innovation economy obtained?

The competency framework developed in the context of the Avanz@ project is based on an evolutionary concept of competence, that is to say, on the study of the internal structure of the competencies and their learning path. Following authors such as Griffin and Care (2012), learning progressions were constructed on which entrepreneurs are located at different levels on a continuum ranging from the most basic competencies to the most complex and sophisticated ones.

The inputs for the construction of these progressions were obtained from three sources: focus groups with entrepreneurs, interviews with experts and an extensive review of the literature. This first part of the fieldwork made it possible to come up with and successively refine behavioral indicators for the key competencies. Fieldwork was conducted in three countries: Costa Rica, El Salvador and Nicaragua, and in three different economic sectors: tourism, agroindustry and pharmaceutical chemistry, respectively.

The results of the three countries were compared, exploring similarities and differences. However, we were unable to detect patterns of progression of competencies by stage or feature that enabled us to distinguish specific patterns by country or economic sector. Therefore, the identified competencies are considered valid for the three economic sectors studied and may also apply to other sectors.

From the indicators obtained in the first part of the fieldwork, a diagnostic tool was designed and tested to generate evidence of its validity using exploratory factor analysis, the Classical Test Theory and the Rasch model. The instrument was applied to SME owners and general managers in the three studied economic sectors in metropolitan areas of the three participating countries. The study was conducted in two phases: an initial pilot with a sample of 241 entrepreneurs, and then an operational implementation of the improved instrument with 531 respondents.

The results show acceptable levels of validity in the measuring done with this scale in the surveyed populations of Costa Rica and El Salvador. However, it will be necessary to continue collecting evidence on its validity.
INNOVATION

Dimension

Skill

Key activity

Develop new ideas in products, services and management models that generate value for customers and the company

1: Identify potential value-generating ideas for the customers or the company

1.1: Research the business environment and customers to identify potential value-generating ideas for the customers and the company

1.2: Generate ideas that add value for the customers and the company

2: Specify new projects (products, services and processes) that generate value for the customers and the company

2.1: Materialize innovative ideas, introducing the necessary changes in the process chain and mobilizing the right resources

2.2: Promote innovation as a process of continuous improvement geared to attaining the company’s main goals

Performance criteria by level

<table>
<thead>
<tr>
<th>Research business environment and customers to identify potential value-generating ideas for customers and company</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay alert to identify innovative ideas based on daily experiences.</td>
<td>1</td>
</tr>
<tr>
<td>Conduct surveys and interviews to study the customer needs and gather innovative ideas.</td>
<td></td>
</tr>
<tr>
<td>Research on the Internet about the latest sector updates and potential future customers.</td>
<td></td>
</tr>
</tbody>
</table>

Generate ideas that add value for the customers and the company

1: Identify potential value-generating ideas for the customers or the company

2: Specify new projects (products, services and processes) that generate value for the customers and the company

Performance criteria by level

<table>
<thead>
<tr>
<th>Generate ideas that add value for the customers and the company</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propose ideas that seem attractive for the company.</td>
<td>1</td>
</tr>
<tr>
<td>Compare different ideas on how to meet customer needs.</td>
<td></td>
</tr>
<tr>
<td>Develop innovative ideas that meet customer needs and are affordable and in line with the company’s philosophy and goals.</td>
<td></td>
</tr>
</tbody>
</table>

Materialize innovative ideas, introducing the necessary changes in the process chain and mobilizing the right resources

1: Identify potential value-generating ideas for the customers or the company

2: Specify new projects (products, services and processes) that generate value for the customers and the company

Performance criteria by level

<table>
<thead>
<tr>
<th>Materialize innovative ideas, introducing the necessary changes in the process chain and mobilizing the right resources</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporate the new ideas into the company’s regular operation.</td>
<td>1</td>
</tr>
<tr>
<td>Introduce changes into the company’s processes to drive innovation (new providers, new packaging, etc.).</td>
<td></td>
</tr>
<tr>
<td>Develop a marketing plan or a new strategy for commercialization of the innovation.</td>
<td></td>
</tr>
</tbody>
</table>

Promote innovation as a process of constant improvement geared to attaining the company’s main goals

1: Identify potential value-generating ideas for the customers or the company

2: Specify new projects (products, services and processes) that generate value for the customers and the company

Performance criteria by level

<table>
<thead>
<tr>
<th>Promote innovation as a process of constant improvement geared to attaining the company’s main goals</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open spaces within the company to experiment and propose new ideas.</td>
<td>1</td>
</tr>
<tr>
<td>Develop a plan to continuously generate innovative ideas in the company.</td>
<td></td>
</tr>
<tr>
<td>Continuously incorporate resources, technology and new talents to support innovation within the company.</td>
<td></td>
</tr>
</tbody>
</table>

Knowledge

- The company’s productive activity
- Business innovation process
- New trends in the sector and in technology
- Economic and political news
- Market research techniques
- Creative thinking techniques
- Knowledge management in the same company
- Value chain inside and outside the company

Values and attitudes

- Regard for others
- Openness to change and criticism
- Striving for excellence
- Passion for the job
- Curiosity
- Discipline, pleasure for things done well
- Perseverance and consistency

Skills

- Empathy
- Perspective taking
- Critical thinking
- Evaluative thinking
- Inventive thinking
- Learn from mistakes
- Team work
- Learn from mistakes
- Search and analysis of useful and reliable information
- Use of digital technologies
CONTINUOUS LEARNING

Dimension | Skill | Key activity
---|---|---
 Manage learning processes to implement ongoing improvement in the company | 1. Seek opportunities for self and employee learning | 1.1: Promote continuous learning opportunities within the company from a perspective of ongoing improvement
 | 2. Learn by analyzing personal and others’ experiences | 1.2: Generate interest among employees for ongoing learning
 | 3. Efficiently manage knowledge inside and outside the company | 2.1: Acquire relevant and reliable information on the business environment and other entrepreneurs
 |  | 2.2: Learn from personal experience in order to improve the company’s performance
 |  | 3.1: Promote knowledge-sharing within the company and ensure its permanence and growth over time
 |  | 3.2: Share knowledge with people outside the company for mutual benefit

### Performance criteria by level

<table>
<thead>
<tr>
<th>Promote continuous learning opportunities within the company from a perspective of ongoing improvement</th>
<th>Level</th>
<th>Knowledge</th>
</tr>
</thead>
</table>
| Attend at least one training activity every year. | 1 | • Institutional support for SMEs
 | | 2 | • Specialized information sources for SMEs in different media
 | | 3 | • Techniques for reliable and relevant browsing on the Internet
 | | | • Techniques for knowledge management within the company
 | | | • Protocols to identify lessons learned
 | Seek specific training and support to improve weaknesses in the company. | 1 | Values and attitudes
 | | 2 | • Curiosity, desire to learn and explore
 | | 3 | • Humility, ability to acknowledge mistakes and limitations
 | Develop an annual training plan to meet the learning needs identified in the company. | 1 | • Ability to listen and accept guidance and advice
 | | 2 | • Willingness to interact and communicate with others
 | | 3 | • Solidarity, willingness to share ideas and knowledge with other entrepreneurs and colleagues
 | Generate interest among employees for ongoing learning | 1 | Skills
 | | 2 | • Know what questions to ask, how to obtain information and extract useful and relevant data
 | | 3 | • Organize and analyze ideas and information
 | Facilitate ongoing employee training opportunities (allow work time for training, support training financially, etc.). | 1 | • Record and secure information and ideas
 | | 2 | • Collaborate with others in generating ideas and information
 | | 3 | • Organize time effectively
 | Talk to employees about performance and aspects to improve. | 1 | • Provide the team with constructive and timely feedback
 | | 2 | • Provide the team with constructive and timely feedback
 | Motivate employees to develop trust in their own skills and maximize their performance. | 1 | • Be able to self-observe and self-analyze
 | Acquire relevant and reliable information on the business environment and other entrepreneurs | 1 | Keys for Learning
 | | 2 | • Stay informed about the business environment (observe competition, read newspapers, watch the news, etc.).
 | | 3 | • Continuously seek specialized and reliable information in magazines, on the Internet and in other media to learn about business and economic trends.
 | Stay informed about the business environment (observe competition, read newspapers, watch the news, etc.). | 1 | • Share information with other national and international entrepreneurs about business and economic trends (participating in discussion forums, consulting experts, etc.).
 | | 2 | • Learn from personal experience in order to improve the company’s performance
 | | 3 | • Analyze in detail the causes of failures faced by the company.
 | Continuously seek specialized and reliable information in magazines, on the Internet and in other media to learn about business and economic trends. | 1 | • Identify positive and negative outcomes following important company activities.
 | | 2 | • Record in writing lessons learned and practices with the best results.
 | | 3 | • Promote knowledge-sharing within the company and ensure its permanence and growth over time
 | Share information with other national and international entrepreneurs about business and economic trends (participating in discussion forums, consulting experts, etc.). | 1 | • Encourage the team to make suggestions and detect issues openly.
 | | 2 | • Organize frequent meetings where the team shares work-related knowledge and ideas.
 | | 3 | • Use digital technologies to document and share key company knowledge.
 | Learn from personal experience in order to improve the company’s performance | 1 | • Share knowledge with people outside the company for mutual benefit
 | | 2 | • Provide information when requested, as long as it does not pose a risk to the business.
 | | 3 | • Share useful information with trustworthy individuals or companies.
 | | | • Share useful information with business groups on the Internet and social networks.

### Keys for Learning

- Knowledge:
  - Institutional support for SMEs
  - Specialized information sources for SMEs in different media
  - Techniques for reliable and relevant browsing on the Internet
  - Techniques for knowledge management within the company
  - Protocols to identify lessons learned

- Values and attitudes:
  - Curiosity, desire to learn and explore
  - Humility, ability to acknowledge mistakes and limitations
  - Ability to listen and accept guidance and advice
  - Willingness to interact and communicate with others
  - Solidarity, willingness to share ideas and knowledge with other entrepreneurs and colleagues
  - Interest in employee growth and development

- Skills:
  - Know what questions to ask, how to obtain information and extract useful and relevant data
  - Organize and analyze ideas and information
  - Record and secure information and ideas
  - Collaborate with others in generating ideas and information
  - Organize time effectively
  - Provide the team with constructive and timely feedback
  - Be able to self-observe and self-analyze
### NETWORKING

#### Dimension: Establish mutual collaborative relationships with other companies and organizations

- **Skill: 1** Generate a network of useful contacts for the company, maintaining the relationships over time
- **Key activity:**
  - 1.1: Interact with useful contacts for the company
  - 1.2: Propose activities to engage in with other companies and organizations

#### Skill: 2 Manage collaborative relationships with other companies and organizations for mutual benefit

- **Key activity:**
  - 2.1: Negotiate the terms of the collaborative relationship for mutual benefit
  - 2.2: Conduct business relationships according to ethical principles
  - 2.3: Coordinate work with partners

### Performance criteria by level

<table>
<thead>
<tr>
<th>Skill</th>
<th>Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interact with useful contacts for the company</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in activities where it is possible to meet people of interest and introduce the company (fairs, forums, business conferences, online business groups, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actively participate in any association, union and/or business chamber.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasionally lead actions within a business network, an association, union, chamber or the like.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propose activities to engage in with other companies and organizations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiate contact with companies and organizations of interest.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propose joint ventures or actions to other companies or institutions identified as valuable partners.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop a plan to set up valuable partnerships with other companies, thus strengthening the company’s goals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiate the terms of the collaborative relationship for mutual benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearly establish the benefit expected from the negotiation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearly communicate expected partner benefits and ask what benefits the partner expects.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record negotiated agreements in writing as a reference for the work to be carried out.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct business relationships according to ethical principles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Define the values that should permeate the relationship with other companies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select as partners the companies or organizations that share those values.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence other companies to follow the same model of corporate responsibility and reliability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinate work with partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak regularly with partners about improving collaborative work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openly discuss differences of opinion with partners when conflicts arise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modify agreements if necessary.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Keys for Learning

#### Knowledge
- Existing associations and business networks
- Fairs and events for entrepreneurs
- Use of digital social networks for networking purposes
- How to prepare a partnering plan
- Negotiation techniques
- Agreement formalization

#### Values and Attitudes
- Trust in others
- Tolerance and flexibility
- Belief in self-value and the value of others
- Belief in the benefits of collaboration, view of the competition as potential collaborators
- Transparency, integrity, clarity, fidelity to ethical principles
- Pro-activeness, determination to seek and create collaboration opportunities

#### Skills
- Identify collaboration opportunities
- Communicate ideas clearly and effectively
- Establish and maintain productive relationships through effective communication
- Recognize and appreciate diversity
- Show empathy towards others
- Teamwork to solve problems and provide assistance when necessary
- Leadership
RESULTS-ORIENTED MANAGEMENT

**Dimension**

1: Generate a strategic vision for the company that guides decisions about what to keep and what to evolve

2: Align the company’s work to fulfill its vision and meet its main goals

3: Manage the use of appropriate technologies for the company

**Skill**

1.1: Clarify the company’s identity and philosophy

1.2: Specify a main bold and challenging long-term goal

2.1: Organize the team to ensure the right employees for each position

2.2: Design work systems aimed at achieving company goals

2.3: Progressively develop the best strategy for achieving company goals

2.4: Continuously monitor the company’s performance to guide decision-making

2.5: Provide a product or service that exceeds customer expectations

3.1: Decide on the possibilities of using digital technologies according to the company’s needs

3.2: Make use of digital technologies as a means of company communications and dissemination

3.3: Make use of digital technologies for the company’s administrative management

**Key activity**

**Keys for Learning**

**Knowledge**

- How to set the company’s identity and philosophy
- How to set company goals and align work plans to them
- How to identify key mechanisms for achieving company goals
  - Employee selection techniques
  - Techniques for motivating and developing human talent
  - How to monitor and improve company productivity
    - Customer service techniques
    - Business technology trends

**Values and attitudes**

- Emotional strength, optimism, ability to bounce back from failure
  - Striving for excellence and healthy ambition
  - Objectivity
  - Adaptability and tolerance for uncertainty
    - Discipline and goal orientation
    - Focus on service and ongoing improvement
    - Focus on detail and a desire to do things well
      - Ingenuity, initiative

**Skills**

- Self-motivation, discipline, goal-setting, effective organization of time and work plan
  - Focus on meeting company goals
  - Analysis of personal strengths and weaknesses
- Accurate analysis of situations and implications of different courses of action
  - Change management
  - Team leading and motivation
  - Task delegation
<table>
<thead>
<tr>
<th>Performance criteria by level</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarify the company’s identity and philosophy</strong></td>
<td></td>
</tr>
<tr>
<td>Define the nature of the company by its productive activity.</td>
<td>1</td>
</tr>
<tr>
<td>Clearly define the nature of the company and the type of business that is desired (its ideal size, desired duration, etc.).</td>
<td>2</td>
</tr>
<tr>
<td>Develop a business philosophy based on to the company’s desired contribution to society and the values it stands for.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Specify a main bold and challenging long-term goal</strong></td>
<td></td>
</tr>
<tr>
<td>Formulate short-term goals to be met (1 year).</td>
<td>1</td>
</tr>
<tr>
<td>Set goals for the company to meet in the short and medium term (5 years).</td>
<td>2</td>
</tr>
<tr>
<td>Formulate the company’s main long-term goal (10-15 years) even if it represents a challenge at this time, and define short- and medium-term goals based on this.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Organize the team to ensure the right employees for each position</strong></td>
<td></td>
</tr>
<tr>
<td>Select employees from the closest people.</td>
<td>1</td>
</tr>
<tr>
<td>Develop a staff selection process based on well-defined job profiles.</td>
<td>2</td>
</tr>
<tr>
<td>Establish working conditions to retain the best employees.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Design a work system aimed at achieving company goals</strong></td>
<td></td>
</tr>
<tr>
<td>Spontaneously organize company tasks according to the needs that arise.</td>
<td>1</td>
</tr>
<tr>
<td>Define work procedures to follow in the company’s different areas.</td>
<td>2</td>
</tr>
<tr>
<td>Continually update key work procedures for meeting goals.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Progressively develop the best strategy for meeting company goals</strong></td>
<td></td>
</tr>
<tr>
<td>Formulate a strategy geared to meeting the company’s goals.</td>
<td>1</td>
</tr>
<tr>
<td>Try different strategies to assess which provides greater economic benefits to the company.</td>
<td>2</td>
</tr>
<tr>
<td>Select a strategy that takes into account what talents the company has, what it is passionate about, and what brings the greatest economic benefits.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Continuously monitor the company’s performance to guide decision-making</strong></td>
<td></td>
</tr>
<tr>
<td>Keep a daily record of the company’s income and expenses (cash flow).</td>
<td>1</td>
</tr>
<tr>
<td>Measure economic growth indicators (sales margin, profitability, growth) and other aspects such as customer satisfaction.</td>
<td>2</td>
</tr>
<tr>
<td>Verify attainment of company goals using specific monitoring measurements (economic results, customer satisfaction, community impact, etc).</td>
<td>3</td>
</tr>
<tr>
<td><strong>Provide a product or service that exceeds customer expectations</strong></td>
<td></td>
</tr>
<tr>
<td>Respond quickly to customer requests and suggestions.</td>
<td>1</td>
</tr>
<tr>
<td>Obtain constant customer feedback through suggestion boxes or opinion surveys.</td>
<td>2</td>
</tr>
<tr>
<td>Compensate dissatisfied customers (offer additional services or not to charge).</td>
<td>3</td>
</tr>
<tr>
<td><strong>Decide on the possibilities of using digital technologies according to the company’s needs</strong></td>
<td></td>
</tr>
<tr>
<td>Adopt promising technologies for the company.</td>
<td>1</td>
</tr>
<tr>
<td>Incorporate the most appropriate technologies for the company’s needs, taking advice from experts.</td>
<td>2</td>
</tr>
<tr>
<td>Continuously research new technologies available in the market (functionality, costs, maintenance, etc.).</td>
<td>3</td>
</tr>
<tr>
<td><strong>Make use of digital technologies as a means of company communications and dissemination</strong></td>
<td></td>
</tr>
<tr>
<td>Use email and/or other instant messaging tool to communicate with customers, providers and others.</td>
<td>1</td>
</tr>
<tr>
<td>Maintain a website and/or a social network profile.</td>
<td>2</td>
</tr>
<tr>
<td>Define a strategy to make the most of social networks and/or the company website as a key means of communication with customers.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Make use of digital technologies for the company’s administrative management</strong></td>
<td></td>
</tr>
<tr>
<td>Use technology for procedures such as accounting, inventory, etc.</td>
<td>1</td>
</tr>
<tr>
<td>Use the Internet for utility payments, bank transactions, etc.</td>
<td>2</td>
</tr>
<tr>
<td>Use an online payment system for customers to pay by credit card.</td>
<td>3</td>
</tr>
</tbody>
</table>
CORPORATE SOCIAL RESPONSIBILITY

**Dimension**

- Develop business management based on sustainability and accountability

**Skill**

- 1. Incorporate sustainability to the business strategy
  - 1.1: Structure the business strategy from a sustainability perspective
  - 1.2: Orient the team towards corporate social and environmental responsibility
  - 1.3: Implement sustainable practices in the company’s processes

- 2: Project the company as an organization that contributes significantly to the community and society
  - 2.1: Develop community outreach practices that generate shared value for the company and the community
  - 2.2: Communicate the company’s corporate social responsibility strategies

**Performance criteria by level**

- **Structure the business strategy from a sustainability perspective**
  - Level 1: Get informed as to how the company can contribute to society and the environment.
  - Level 2: Introduce features that distinguish the company as a socially and environmentally responsible organization.
  - Level 3: Integrate corporate social responsibility into all company actions.

- **Orient the team towards corporate social and environmental responsibility**
  - Level 1: Speak with the team about the importance of taking care of the community and society.
  - Level 2: Train employees in environmental and social stewardship.
  - Level 3: Reward employees with environmental and social stewardship initiatives.

- **Implement sustainable practices in the company’s processes**
  - Level 1: Include environmental practices in the company’s processes (waste management, environment-friendly materials, clean technologies).
  - Level 2: Measure the company’s environmental impact to monitor its reduction (for example, measuring its carbon footprint).
  - Level 3: Offset the company’s environmental impact (for example, tree-planting campaigns, etc.).

- **Develop community outreach practices that generate shared value for the company and the community**
  - Level 1: Develop practices that prioritize the local community (buying local products, hiring locally, etc.).
  - Level 2: Contribute company resources to support social causes in the community (school aid, donations, etc.).
  - Level 3: Coordinate with community leaders and organizations for implementation of actions to benefit the community.

- **Communicate the company’s corporate social responsibility strategies**
  - Level 1: Transparently disclose the company’s actions, accepting the responsibility for any negative effects.
  - Level 2: Encourage other companies to follow its example, informing them of the company’s social and environmental practices.
  - Level 3: Incorporate the company’s actions for benefitting the environment and society into its advertising.

**Keys for Learning**

- **Knowledge**
  - Sustainable business concept
  - CSR as a shared value concept
  - CSR indicators
  - Green production processes
  - Clean technologies
  - Measurement and offsetting of environmental impact
  - Accountability techniques

- **Values and attitudes**
  - Responsibility and commitment to oneself, employees, community, country and the world
  - Caring and concern for others

- **Skills**
  - Long-term projection and vision
  - Systematic thinking

24
DOES IT MAKE A DIFFERENCE TO HAVE THESE COMPETENCIES?

SME performance is related to the capacities or competencies of the person at the head of the company: what entrepreneurs do and how they do it.

There are external factors that condition the SME sustainability such as access to credit, business environment conditions, the infrastructure situation, and access to skilled human resources, among others. However, the belief that business success also depends on the competencies of the entrepreneur is gaining strength.

The Avanz@ project is interested in studying the relationship between competencies and the possibilities of SME sustainability and growth. Our research found a statistically significant correlation1 (Sig. 0.499) of practical importance between the level of business leaders’ competencies for the knowledge and innovation economy and the average annual sales of their companies.

Research conducted in other geographical areas has also provided evidence of this relationship. Authors such as Man (2001), Ahmad (2007) and Sarwoko et al. (2013) have found that business competencies in key areas (opportunity, organization, commitment, conceptual, strategy, relations) are a major predictor of measured business success, such as, for example, efficient investment, growth and relative performance. Interestingly, the study by Ahmad (2001) found that business people with a higher level of competencies performed better than those at a lower level when faced with hostile and dynamic environments, unlike what happens in more stable environments.

What factors are associated with entrepreneurs’ competency levels?

The Avanz@ project also sought to identify the factors related to the level of competencies for the knowledge and innovation economy that Central American entrepreneurs have, without this relationship implying any causality. An association was found between these levels and digital technology use in the company and frequency of training. That is, the main difference found between entrepreneurs with high levels of these competencies and those with low levels is that the former participate more frequently in training and use more technology in their companies.

On the other hand, no association was found between the educational level, gender, age or experience as company leaders or managers and the entrepreneurs’ competency levels. Nor was a relationship found with company age or the fact that it does business in international markets.

These results show the importance of encouraging access to training and, in general, to opportunities for development of competencies as part of the promotion policies for this business population. It has been observed, as a general rule, that when SME entrepreneurs are dedicated to ongoing learning and acquiring of new perspectives, they very likely also support their employees in developing the required competencies (Cobo, 2012).

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1 All correlations are measured statistically with values ranging from -1 to 1. Values approaching zero would indicate little relationship between the variables, and absolute values greater than 0.3 indicate a strong correlation. These correlations also indicate the type of relationship between two variables, so correlations between -1 and 0 are decreasing relationships while relationships between 0 and 1 are increasing relationships.
Study of factors associated with entrepreneurs’ competencies for the knowledge and innovation economy

Part of the analysis of the data obtained from the operational application of the instrument for diagnosing competencies for the knowledge and innovation economy (see pages 34 and 35) included a study of the factors associated with the score on the instrument, the purpose being to identify variables associated with that score, according to the conceptual framework. Multiple regression method was used for this data analysis.

In a multiple regression model an equation is constructed where the dependent variable or criteria (Y), that which is to be predicted or estimated, is conceived as a linear function of a set of independent or predictive variables (X1, X2, X3, …Xn).

In this case, the dependent variable was the score obtained on the scale measuring entrepreneurs’ competencies for the knowledge and innovation economy. The independent variables were the index of technological appropriation (prepared from the answers regarding technology use in the company), highest educational degree, training every one or two years, training several times a year, dealing with international markets, sex, age, business experience, and the company’s start-up year.

The results show that only three of these variables have a relevant and statistically significant association with the scores on the instrument: the technological ownership index, training every one or two years, and training several times a year. When the technological ownership index increases by one point, the score on the instrument increases on average by 28.46 points. Moreover, on average, a person who claims to receive training once a year or every two years will have 10.22 more points on the instrument than a person who says they have not participated in training. Finally, a person who indicates they participate in training several times a year is expected to obtain a higher score by 19.25 points, on average, than a person who says they have not had any training.

Finally, the rank correlation coefficient (Spearman) was calculated between the score on the instrument and the annual sales of the company, obtaining in a relatively high value of 0.499. This indicates that as the score on the instrument improves, the annual sales level also tends to increase; this relationship is statistically significant and of practical importance.
SUCCESSFUL PRACTICES

SME entrepreneurs in our region are achieving their companies’ sustainability by putting these competencies to work in their day to day business.

Libélula Coffee Shop: ongoing learning makes a difference

Libélula Coffee Shop is a cafe in Leon, Nicaragua, established less than two years ago. Since then it has increased sales by 900% and has become a reference point for national clientele and tourists. It specializes in coffee-based beverages and the sale of whole-bean and ground coffee.

The owner, José Pineda Nelson, began by clearly picturing how he wanted his company to be and this marked his course. He had no prior knowledge of the operational aspects of an activity of this type, so he sought formal training and started a learning process that he maintains to this day, feeding into it with personal research and experimentation. Additionally, he encourages his employees to do the same and share their ideas to improve the company's business. He has found that keeping an open mind and open eyes is essential for learning.

Nelson and his team take time to learn what other similar businesses are doing in his country and abroad and also stay in close contact with their customers in order to learn their opinions and needs. They analyze their own performance, strengths, and weaknesses in order to refine their processes with the help of technology.

They have learned that a company’s success depends on its ability to continually improve and that this requires the whole team’s steady commitment and interest. They have learned that their customers are what drive them to seek solutions and that passion for what you do is paramount for achieving your desired goals.

The Avanz@ project also generated knowledge of cases of good business practices in the region associated with the key competencies for entrepreneurs in the context of the knowledge and innovation economy. Specifically, it was observed how several Nicaraguan entrepreneurs are implementing in their SMEs the key competencies described in the competency framework and how the context and challenges shape the way these competencies are manifested in each particular case.
Quesillos Gourmet Mi Finca: innovation based on adding value to a traditional product

*Quesillos Gourmet Mi Finca* is an agro-industry company located in Managua, Nicaragua, dedicated to the production and sale of quesillos, a typical Nicaraguan food consisting of a type of cheese served with tortillas, onions and cream.

The owner, Fernando Roa, noted that despite the fact that quesillo is sold almost everywhere in the country, customers frequently complained about the service generally provided by establishments selling this kind of product, with inconsistent product quality and unhygienic preparation and storage conditions. Fernando thought that things could be different and began to research and document ideas on how to improve the product and the conditions in which it is offered to the consumer. He noted that some international franchises have good practices to this respect, so he set about studying them and designed a business plan based on providing added value to the traditional quesillos, winning a prize that provided him with seed capital. In 2008 he founded his company and in his first six months doubled his annual sales goals.

He has since promoted a corporate culture that encourages innovation to further improve processes, the quality of inputs, and customer service. Quesillos Gourmet Mi Finca experiments with new ways of doing things, understanding that mistakes are an important part of the innovation process. To avoid getting lost along the way, it has set quality standards that enable it to move ahead while maintaining the characteristic features that so attract their customers.

Fernando and his team understand that the inspiration for innovation comes from understanding the expectations and needs of their customers. They know that business success depends on the ability to anticipate surprise, maintain adequate quality and continually reinvent themselves. Not only are they dedicated to observing customers; Fernando has also acquired the practice of exchanging useful information with other entrepreneurs and studying texts about company success stories the world over. He enjoys interacting with students and young professionals who can provide him with a fresh perspective, as well as participating in activities organized by universities and institutions to get specialized ideas.
Carmen Davila comes from a family of coffee producers in Nicaragua and is the owner of the Carmenitas Coffee Company. In 2009, Carmen began an initiative to add value to the coffee they produced and managed to quickly move from selling a single variety of roasted and ground coffee to offering a wide range of products in Nicaragua’s major supermarkets.

For her, collaborating with institutions, business leaders and unions has been an essential part of her work as an entrepreneur and a clear basis for her company’s success. Carmen realized early on the potential of these relationships for learning and opportunities. She discovered the necessity of devoting time to establishing and maintaining contacts of interest for the company, and the importance of positioning herself as someone who can contribute to others. She believes that a willingness to collaborate and share in a respectful, transparent and win-win context is the key to open all doors.

Another important lesson learned by Carmen was the usefulness of digital technologies for facilitating contact, sharing and getting to know individuals, companies, and institutions -- both domestic and foreign -- that could contribute to the company’s development.

Along the way she had to overcome significant challenges, such as her own shyness and the need to strengthen her social skills. Her advice for those who, like her at first, feel they are not able to develop an activity of this type, is for them to try, practice and not get discouraged when things do not go as expected, and that they seek training and contact with people who have experience in this area.

Carmelitas Coffee: contributions of networking to business growth
La Gaviota Dairy: going for continuous experimentation

“La Gaviota” Dairy is a Nicaraguan company dedicated to the production and sale of dairy products, which began operations in 2000. Its owner, Patricio López, is characterized by his interest in detecting needs for improvement and ways to solve them. He has shown that innovation does not necessarily require large investments; it can be achieved with small changes that generate large transformations.

Early on he started focusing on making his production processes more efficient and effective, and on seeking greater differentiation for his products. These efforts enabled the company to increase its revenues, improve its status, and obtain distinctions from various organizations and easier access to economic resources.

To achieve this, Patricio and his team work on understanding the environment and customers to detect potential ideas; they carefully observe their customers, their competition and market trends in general. They implement innovative ideas in their company, making changes and putting into practice what they learn in training and from an analysis of their own work. They experiment on a regular basis, always being careful not to take ideas to the market without testing them in advance. They have established quality standards and they make sure that both the team and the providers know and implement them.

Patricio maintains a curiosity to learn from others, so he talks with vendors and other entrepreneurs to get new ideas; he also reads and looks for information on the Internet. For him, staying positive and continuing to try even when things do not go to as expected is a fundamental part of incorporating innovation as an ongoing practice.
A COMPETENCY LEARNING PATH FOR THE KNOWLEDGE AND INNOVATION ECONOMY

The project has suggested a learning path that employers or those in positions of leadership in SMEs can follow to develop strategic competencies for the knowledge and innovation economy.

Competencies for the knowledge and innovation economy can be learned. There is a body of knowledge, skills and attitudes associated with these competencies that can be progressively acquired. The Avanz@ project proposes a learning path that shows how a person progresses from the most basic to the most sophisticated levels of competencies for the knowledge and innovation economy.

The learning path is inspired by the idea that competencies are acquired in an evolutionary manner. Knowing the levels or steps of this path makes it possible to place each person according to their present level and identify the next step that could be taken. With a certain amount of encouragement and support, individuals can overcome their own particular challenges and be prepared to reach the next level.

These contributions expand your knowledge of what it means to develop yourself as an entrepreneur and your understanding of how to conceptualize soft competencies, which are of a more subjective and intangible nature. Unlike technical skills, these are not usually found in training plans.

Similarly, the competency learning path for the knowledge and innovation economy and the diagnostic instrument are valuable tools for building effective training and learning processes, showing a possible method to follow for other soft skills. In particular, they help us design interventions and support programs specifically geared to meet the well-defined needs of entrepreneurs instead of developing generic actions that may possibly be less effective.

In the case of entrepreneurs’ competencies for the knowledge and innovation economy, the learning path consists of five development or performance levels.

Evolutionary concept of competencies

Authors such as Griffin and Care (2012) defend the view of a competency as something that is acquired gradually over time on a learning continuum, not as something discrete that one does or does not have. This understanding of competencies helps us appreciate the value of designing differentiated and personalized training interventions based on a person’s competency level, and of using evaluation as a tool to aid in learning.
**Competency Performance Levels of Entrepreneurs for the Knowledge and Innovation Economy**

<table>
<thead>
<tr>
<th>Level 1 – Planning</th>
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<tbody>
<tr>
<td>At this level, entrepreneurs define their company’s basic identity (activity, ideal size), formulate one-year goals and a strategy to accomplish them. They are clear about the procedures (what needs to be done) in every area of the company and keep basic control over accounting. They nimbly handle customer relations. They stay informed about their environment through easily available mechanisms and regularly identify what is going well or badly. They come up with innovative ideas and compare them. With respect to corporate social responsibility (CSR), they buy and hire locally and ensure favorable working conditions.</td>
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<th>Level 2 – Research and Testing</th>
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<td>At this level entrepreneurs, starting with their basic business identity, develop a business philosophy that revolves more around the contribution the company wishes to make to society. They try out different strategies to select the one giving the best results and tying in better with their corporate identity. They obtain more complex and accurate information on company performance: more complex performance indicators and continuous feedback from customers. They are interested in technology, incorporate tools they feel are better suited to the company, and apply them in different procedures (management, communication). They are starting to get into research (from being alert to everyday experiences to online research) and are opening up spaces for experimenting and proposing new ideas. They seek information from specialized sources. They are also beginning to refine their criteria for assessing the value of innovative ideas. They occasionally incorporate a new idea into the company’s normal operations, other times making changes to various components of their value chain. They analyze their mistakes more in depth and are starting to share knowledge with outsiders. They familiarize themselves with CSR practices and are starting to incorporate environmental practices into their company’s processes. They ensure even better working conditions for their employees.</td>
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<th>Level 3 – Consolidation and Continuous Improvement</th>
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<td>At this level, entrepreneurs formulate long-term goals (5 years) and closely monitor their compliance based on specific measurements. They continuously update the work procedures that are essential to these goals. They research technology and have a website or network profile. They also investigate customers using more elaborate techniques. They complete the cycle of innovation, thinking of new marketing strategies for their innovations and establishing a plan to continually generate resources to support these processes. They are starting to provide learning opportunities for the company, attending and seeking training opportunities according to the needs of the company and its employees. They are beginning to interact more openly with other entrepreneurs, conversing with them about their business. They are beginning to integrate CSR more clearly into their company’s strategy. They contribute resources to support social causes.</td>
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<th>Level 4 – Interaction and Outreach</th>
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<td>At this level entrepreneurs participate in activities where they can meet people and come into contact with people they are interested in collaborating with. They exchange useful information with other entrepreneurs. They develop negotiation processes and coordinate the proposed work with partners. They define the values they wish to see reflected in their relationships, influencing other companies. They have a strategy to take advantage of networking and the Internet as a means of communication with customers. They maintain an annual training plan. They keep a written record of lessons learned and best practices. They transparently disclose what the company does, accepting responsibility for its negative effects.</td>
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<th>Level 5 – Leadership</th>
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<td>At this level entrepreneurs formulate an overriding long-term goal (10-15 years) even if it represents a challenge at the time. They actively participate in business associations. They exchange information with business groups online. They develop a partnering plan, carefully selecting companies with which to partner. They propose joint ventures. They keep a written record of agreements and modify them if necessary. They measure impacts and act to offset them. They coordinate actions with community leaders. They incorporate CSR actions into their advertising. They motivate other companies.</td>
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HOW CAN THE COMPETENCY LEVEL OF ENTREPRENEURS BE IDENTIFIED?

A digital diagnostic tool makes it possible to identify the level of each entrepreneur on the suggested learning path for key competencies for the knowledge and innovation economy.

In order to support business development processes and training opportunities, the Avanz@ project has developed an instrument to identify the performance level of those in SME leadership positions in competencies for the knowledge and innovation economy. The instrument has acceptable validity for the business population of Costa Rica and El Salvador.

The project website (www.fod.ac.cr/avanza), has a digitalized self-administered version of the tool available for open and free use. The questionnaire consists of simple questions that entrepreneurs have to answer; once completed, a report is generated giving the competency mastery level and recommendations for achieving better performance. The purpose is to help entrepreneurs self-assess their current capabilities, establish goals for transforming their practices, and make their companies sustainable.

The instrument can also be used by organizations responsible for implementing business development and training programs in order to identify the particular needs of their target population and guide more accurately their training efforts. The tool can also be applied for more global diagnostics to help with public policy and/or plans for strengthening business sectors.
Example: Results Report of the Diagnostic Tool for Business Competencies for the Knowledge and Innovation Economy

KIE Competences

Name of the person

![Graph depicting KIE Competences with scores for various domains such as Innovation, Ongoing learning, Corporate social responsibility, Results oriented management, and Networking. The chart shows a linear progression with scores ranging from 1 to 5.]
HOW CAN STRATEGIC COMPETENCY DEVELOPMENT BE FOSTERED IN SMEs?

Coordinated efforts at different levels and appropriate training for the needs of SMEs, in terms of both form and content, are needed to raise the level of competencies in regional SMEs.

Continuous training is essential for entrepreneurs to acquire the competencies needed in the knowledge and innovation economy. However, only a few are trained or receive training with any frequency. In the Avanz@ project study of 532 entrepreneurs from Costa Rica, El Salvador and Nicaragua, almost half indicated they had never received training.

Why is this happening? Compared to large enterprises, SME entrepreneurs have greater barriers to developing the competencies needed for making their companies competitive. Some of these barriers are structural in nature, such as the general lack of adequate basic education and technical training. Others are more practical, such as difficulties in organizing time or obtaining the necessary funds to access training opportunities.

To promote the necessary competencies in SMEs, then, development of strategies at three different levels is required: major policies, programs and actions, and methods and specific content.

POLICIES

1. Policies that promote a solid basic education of the population that includes the development of entrepreneurial skills and attitudes. The development of skills and attitudes such as initiative, creativity, problem-solving and collaboration should be encouraged early in the formal education system. This should be part of a very solid basic education (reading and writing, math, science, world culture, a second language, and digital competencies) that lays the groundwork for more in-depth studies and professional specialization. Central American countries need to make a huge effort to strengthen their educational systems along this line.

2. Policies that encourage the development of basic business competencies ranging from the skills required to identify an opportunity and implement a venture to those required to survive and grow over time. This involves combining management skills with strategic competencies to cope with the demands of the knowledge and innovation economy. This business training can start at the same time as technical, vocational or university training. Continuing education mechanisms will be needed, however, for completing, expanding on and updating the training received in those early levels. It will also be necessary to meet the needs of those who for various reasons could not access technical or vocational training.

3. Policies that encourage the development of advanced entrepreneurial skills. More mature SMEs with greater expertise will need support for developing the capacity to generate innovation systematically, establish local and international work networks, use digital technologies for promoting exchange and collaboration, build stronger links between the business activity and its contribution to social development and well-being. Here collaboration between universities and SMEs and the strengthening of technology parks, etc., would be valuable.

The collaboration of a large number of stakeholders is needed to promote this diverse set of educational opportunities, from national vocational training institutes and public administration institutions to business organizations and non-profit organizations committed to social work of this nature.
**PROGRAMS AND ACTIONS**

There are also three different types of programs and training activities:

- **Formal programs**: education provided by professional, university and technical education centers, leading to degrees or official certification. These provide a foundation of technical and management know-how for going into the production of a specific service or product.

- **Non-formal training programs or activities**: training that is not officially certified, provided by the centers mentioned above but also by other institutions such as business chambers and groups, nonprofit organizations, public administration agencies, etc. This type of education is very valuable when people have already started their undertaking and need to acquire specific knowledge and skills.

- **Informal spaces for the development of competencies**: training is acquired through experience, everyday interactions, or self-learning processes in the workplace or elsewhere.

The study conducted by this project with entrepreneurial populations in Costa Rica, El Salvador and Nicaragua found that the preferred training modalities in the three countries are consultancies and brief training courses. This coincides with information from other geographical and cultural contexts indicating that non-formal and informal training are perceived by SMEs as being the best form of training, since they make it possible to work on specific, relevant aspects, applicable when and where needed and having an immediate impact on business productivity (Cobo, 2011).

These data indicate the value that learning options based on informal mentoring, expert support and brief training have for SMEs entrepreneurs in our region. However, formal training programs are still relevant to them; this may be related to the lag in formal education levels that still characterizes the region’s population in general.
METHODS AND CONTENT

Considering that non-formal and informal programs are of particular interest to SMEs, below are highlighted some of the main methodologies that could inspire their design. Subsequently, some of the findings of the Avanz@ project are discussed in terms of the content that might be of particular value for SMEs today.

Action learning. Often the most valuable knowledge is acquired in the context of everyday work activities, reflecting on what is being done and how. This is tacit (implicit) knowledge that cannot be taught but rather is acquired through discovery, observation, practice and experience. It is therefore important to learn from the work environment and in collaboration with others. These are the features of action learning, an approach developed by Reginald Revans for training managers that was later used by researcher Heylin Camacho with Costa Rican SMEs (Camacho, n.d.). In her study, Camacho developed a method to get together company, government and university representatives for a period of time to improve the processes of an SME by incorporating ICTs. This collaborative work helps entrepreneurs identify, analyze and troubleshoot their companies’ problems with the support of colleagues.

Online training. This includes online courses, but also participation in virtual communities. Management skills include “soft skills” that are difficult to get through e-learning. Online training has more impact when combined with other more traditional methods of learning that include interactions with an expert or tutor. Online learning may be more effective when combined with more traditional forms of training that encourage, for example, work in small groups. This fosters the development of interpersonal and communication skills.

Consultancies. For SME entrepreneurs, who very often urgently need to find solutions to their companies’ problems and difficulties, quick consulting schemes are usually very valuable and useful -- such as, for example, breakfast meetings with other entrepreneurs (peers) or people who can offer advice on specific issues they may be facing. There may also be valuable programs or short courses designed specifically for entrepreneurs at the same level of development. This not only makes sure the training is geared to them; it also encourages interaction with peers having similar profiles.

How do entrepreneurs learn to undertake entrepreneurial projects?

- By using appropriate examples and models that help illustrate and define guidelines that can be used as references.
- By sharing with colleagues about mistakes they may have made at some point.
- By analyzing problems they are experiencing in their companies together with experts or people who can provide specific support.
- Through ongoing self-assessment of acquired competencies.

The Avanz@ project’s study also inquired about the topics the surveyed entrepreneurs have received more training on and the topics that would interest them the most.

The topics on which they have received more training are “production and quality” (32.3%), “respective technical areas” (30.3%), and “marketing, sales and advertising” (29.7%). These topics fall within the content of most interest for entrepreneurs at the early stages of the competency learning path for the knowledge and innovation economy. In addition, the entrepreneurs also had special interest in topics related to accounting and financial management, business plans and planning.

On the other hand, topics on which the surveyed entrepreneurs have received less training are “leadership and management” (15.2%), “using technology” (17.9%), “corporate social responsibility” and “innovation” (both 18.6%). These topics coincide with the preferences of entrepreneurs at higher competency levels for the knowledge and innovation economy.

AVANZA SYSTEM

A digital tool that can contribute to the generation of action learning

The Avanza System is free software developed by ILO/Cinterfor in the Avanza project framework, accessible through www.oitcinterfor.org/node/4837 and the project website (www.fod.ac.cr/avanza), and inspired by the methodology of the Integrated Productivity Enhancement and Improvement System (SIMAPRO, its acronym in Spanish). SIMAPRO is a system developed by ILO/Cinterfor that enables companies to set and achieve goals through the participation of all their members. It is based on the concept of continuous learning and teamwork as key elements for a company’s sustainable development. What the Avanza System now contributes is the possibility, through a friendly digital tool, to easily and independently run through the following steps:

- Define indicators to measure the company’s productivity. The system has already established indicators associated with key aspects of the knowledge and innovation economy; however, users can create their own indicators according to their particular objectives.
- Periodically enter, as necessary, the data for the defined indicators.
- Observe the changes in the indicators over time and compare them with those of other companies that are also using the tool. The information is anonymous, that is to say, the privacy of those who are entering data is preserved.
- Browse educational materials and suggested resources for training and improvement associated with the indicators they are most interested in improving.
ACTIONS INVOLVED IN THE DEVELOPMENT OF BUSINESS COMPETENCIES

There is a diverse group of actors involved in the process of SME competency development who should work together to provide more and better training tools for SMEs.

Many of the actions taken by these institutions are intended to strengthen business competencies through training, support and consultancy services for SMEs in order to build their capacities and boost the local and national economy.

Financial organizations

Financial institutions also offer training to SMEs under financing programs. These institutions organize training on topics such as marketing, finance, interpersonal skills and abilities (leadership, self-esteem, and effective communication). For example, the Banco Nacional de Costa Rica has developed the Banking Woman program, a comprehensive financial and business support service providing specialized advice and loans to women for improving their businesses, working conditions and quality of life. Another example is the EHVA (an acronym in Spanish that stands for entrepreneurship, skills, sales and self-esteem), a program to strengthen the innate abilities and self-esteem of women entrepreneurs, developed by the Costa Rican Association for Development Organizations (ACORDE, acronym in Spanish) of Costa Rica. Meanwhile, the training center of the Development Bank of El Salvador (BANDESAL, acronym in Spanish) offers diploma courses in management, business planning workshops and interactive forums such as “Woman Entrepreneur”.

Government institutions

These are responsible for developing public policies to strengthen SMEs. The policies are for regulating and improving the business environment, creating appropriate conditions for formalizing businesses, developing local and national production and businesses, and encouraging entry into new markets, among other things. In recent years, public administrations in Central America have promoted a scheme of decentralized attention to SMEs, based on the model of the Small Business Development Center (SBDC) at the University of Texas San Antonio. Using this model, local offices have been created -- CREAPYMES in Costa Rica (Micro, Small and Medium Enterprise Development Center of Costa Rica, for its acronym in Spanish) and CEDEMYPES in El Salvador and Nicaragua -- providing SMEs with general guidance and specific support for access to training opportunities and capacity-building. Each CEDEMYPE or CREAPYME has a specialist in formalization procedures and information about financial and business development services, exports, and trade associations, among other things.

Business chambers, associations and guilds

Business chambers, guilds and associations are also developing training programs and advisory services for their members. They are developing specialized courses and seminars for priority areas such as customer service, quality improvement, financial and accounting management, teamwork, organizational development, and continuous improvement, among other key areas. They also conduct promotional programs for bringing SMEs together with the idea of creating alliances to improve the companies’ development opportunities. These organizations are incorporating into their training programs such strategic topics as chaining, corporate social responsibility and innovation management. One example is the Costa Rican Association of Rural Community Tourism (ACTUAR, acronym in Spanish), a non-profit organization that brings together more than 40 community associations from around the country and works to strengthen rural community tourism, rescue the country’s traditional activities, protect the environment and promote sustainable economic development in rural areas.
Training institutions

All the higher education and professional training institutions are also important. In addition to their range of formal educational programs (leading to professional degrees), these institutions offer specialized education and training for SMEs, both virtually and face-to-face, in the form of courses, seminars, talks and business development encounters, and also collaborate with advisory and support, depending on companies’ needs. Some of these institutions have developed business incubation and entrepreneurship programs, such as the effort by the INAPYMES unit at the National Learning Institute of Costa Rica (INA, acronym in Spanish), and at a university level, by the “UNA-Entrepreneurs” of the National University (UNA, acronym in Spanish), aimed at stimulating and boosting creativity, innovation, research and the development of new ideas that are consolidated within companies.

Private and non-profit organizations

The private sector has also joined efforts to develop relevant competencies and training opportunities for SMEs through the development of new methodologies, research, capacity-building of sector stakeholders, business incubation, and a wide and varied training and continuous update offering. There is also an active network of social-purpose non-profit organizations and private companies promoting the development of competencies in such strategic areas for SMEs as innovation, the use of digital technologies, corporate social responsibility and business management.

An interesting case is the RBA (Responsible Business Alliance) which designs and implements Strategic Social Responsibility programs that create economic, environmental and social value for different stakeholders. This organization has won awards, including one for Best Practices in Latin American Corporate Social Responsibility 2009 from the Mexican Center for Philanthropy (CEMEFI, for the acronym in Spanish). It also received the 2008 Expotur Corporate Social Responsibility Award from the Association of Tourism Professionals and the Costa Rican Ministry of Tourism. Among other awards it has received was the SME Development Project’s Recognition for Corporate Social Responsibility 2003.
ECOSYSTEM OF ACTORS

Costa Rica

Government institutions:
• Ministry of Economy, Industry and Commerce (MEIC), and its General Directorate for Small and Medium Enterprises (DIGPYME, for the acronym in Spanish)
• Ministry of Science, Technology and Telecommunications (MICITT, acronym in Spanish)

Financial organizations:
• Banco Nacional de Costa Rica (BNCR)
• Banco Popular y de Desarrollo Comunal (BPDC)
• Costa Rican Association for Development Organizations (ACORDE, acronym in Spanish)
• Micro, Small and Medium Enterprise Development Center of Costa Rica (CEDEMIPYME)

Business chambers, guilds and associations:
• Chamber of Information and Communication Technologies (CAMTIC, acronym in Spanish)
• Costa Rican Chamber of Industries (CICR, acronym in Spanish)
• Costa Rican Food Industry Chamber (CACIA, acronym in Spanish)
• National Institute of Cooperative Development (INFOCOOP, acronym in Spanish)
• Costa Rican Chamber of Exporters (CADEXCO, acronym in Spanish)
• Costa Rican Association of Rural Community Tourism (ACTUAR, acronym in Spanish)

Training institutions:
• National Learning Institute (INA, acronym in Spanish)
• Micro, Small and Medium Enterprise Development Center of Costa Rica (CEDEMIPYME)
• National Technical University (UTN, acronym in Spanish)
• National University of Costa Rica (UNA, acronym in Spanish)
• University of Costa Rica (UCR, acronym in Spanish)
• Costa Rica Institute of Technology (ITCR, acronym in Spanish)
• University College of Cartago (CUC, acronym in Spanish)

Private and nonprofit organizations:
• Enhancement of Technology Business (PARQUETEC, acronym in Spanish)
• Omar Dengo Foundation
• FUNDES Costa Rica
• Liberty Park
• MSMEs of Costa Rica
• MCNGroup
• Responsible Business Alliance (RBA)

Nicaragua

Government institutions:
• Ministry of Nicaraguan Family Economy (MIFIC, acronym in Spanish)
• Nicaraguan Support Institute for Small and Medium Enterprises (INPYME, acronym in Spanish)
• Nicaraguan Council on Science and Technology (CONICYT, acronym in Spanish)

Business chambers, guilds and associations:
• Nicaraguan Chamber of Commerce (CCSN, acronym in Spanish)
• Nicaraguan Chamber of Industries (CADIN, acronym in Spanish)
• Nicaraguan Institute of Development (INDE, acronym in Spanish)
• Costa Rican Chamber of Exporters (CADEXCO, acronym in Spanish)
• Costa Rican Association of Rural Community Tourism (ACTUAR, acronym in Spanish)

Training institutions:
• National Technological Institute (INATEC, acronym in Spanish)
• American University (UAM, acronym in Spanish)
• Western University (UDO, acronym in Spanish)
• National Engineering University (UNI, acronym in Spanish)
• Central American University (UCA, acronym in Spanish)

Private and nonprofit organizations:
• AGORA Partnership
• Technical Assistance and Business Center for Micro, Small and Medium Industrial Enterprises (CENAMI, acronym in Spanish)
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