

A HireLabs ProfileSense project proposal

“Training Needs Analysis & Competency Mapping”

Prepared for United Nations Industrial Development Organization

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Introduction

About HireLabs ProfileSense

The HireLabs ProfileSense system was created at Stanford University in California, in collaboration with the US Department of Labor. This was the brainchild of Saleem Qureshi, whose object was to quantify human behavior through a process of Six Sigma.

ProfileSense – the system

The system (called ProfileSense) contains data on over 4,500 occupations. For each occupation the system contains the following information:

1. Description
2. Responsibilities
3. Tools needed
4. Knowledge required
5. Skill required
6. Abilities required
7. Work context
8. Work values and ethics required
9. Salary ranges

ProfileSense used as a framework

Since ProfileSense has this (above) information for every occupation, it makes creating a framework and managing data extremely easy. ProfileSense used all the data to start quantifying what is needed for each occupation. Once this was completed, ProfileSense simply started scoring people on how well they could fit the various criteria (of the sections mentioned above), and this tells us about Job Fit.

The technique that ProfileSense as adopted allows those who are conducting strategic planning to use one framework which will help them measure and score an entire workforce (local, cluster based, or nation) using one framework.

Applications of ProfileSense

Since ProfileSense have a very powerful technology behind it, ProfileSense can be used not in the execution aspect of business, but also in the data management aspect as well. This means that ProfileSense can be used to facilitate

1. Recruitment and Screening
2. Training Needs Analysis
3. Performance and evaluation
4. Workforce planning
5. Competency identification
6. Salary expectation and analysis

Governments that are using ProfileSense

The power behind ProfileSense has allowed it to win government contracts and collaborations in the US, Saudi Arabia, China, and Singapore. All of the 4 places have very different work ethics and

environments, but since ProfileSense is built to provide flexibility, it rapidly gaining the respect of all who are using it.

ProfileSense application at UNIDO

Based on the brief meeting with Hilary Warmoth representing UNIDO, HireLabs was requested to illustrate how it can utilize ProfileSense to assist in the training needs analysis and competency/skill identification of a cluster in Karachi. There are several ways that this can be achieved. The initial steps are to:

1. Identify the positions that need to be assessed
2. Through a logical understanding of each business, list the competencies of each of each position, which will go to creating a competency map
3. Identify the desired productivity level that each business is supposed to at
4. Identify the gap between the current productivity level and the desired productivity level
5. Through the gap analysis, identify the competencies at their weakest
6. Once this entire cycle has been completed for all positions, a clear picture of a group of competencies that are at their weakest will start emerging
7. Create a training program based on competencies that are at their weakest
8. Provide the training to the relevant people
9. Monitor the productivity levels post-training

ProfileSense on Farm and Agriculture position

The following is a list of 20 positions and their respective summary descriptions of farm and agriculture related occupations that are present in the HireLabs ProfileSense system. The entire system has a over 4500 occupation and all the relevant data regarding each position

1. **Crop and Livestock Managers** (*we have elaborated on this position by illustrating the depth of this framework – see page 7*) - Direct and coordinate, through subordinate supervisory personnel, activities of workers engaged in agricultural crop production for corporations, cooperatives, or other owners. Record information such as production figures, farm management practices, and parent stock data, and prepare financial and operational reports. Contract with farmers or independent owners for raising of crops, or for management of crop production.
2. **Farmworkers and Laborers, Crop, Nursery, and Greenhouse** - Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; cleaning, grading, sorting, packing and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.
3. **Farmworkers and Laborers, Crop** - Manually plant, cultivate, and harvest vegetables, fruits, nuts and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; cleaning, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.

4. Agricultural Equipment Operators - Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops. May perform tasks, such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, threshing, and ginning.
5. Soil and Plant Scientists - Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.
6. Purchasing Agents and Buyers, Farm Products - Purchase farm products either for further processing or resale
7. Farm and Home Management Advisors - Advise, instruct, and assist individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Demonstrate procedures and apply research findings to solve problems; instruct and train in product development, sales, and the utilization of machinery and equipment to promote general welfare. Includes county agricultural agents, feed and farm management advisers, home economists, and extension service advisers.
8. Farmers and Ranchers - On an ownership or rental basis, operate farms, ranches, greenhouses, nurseries, timber tracts, or other agricultural production establishments which produce crops, horticultural specialties, livestock, poultry, finfish, shellfish, or animal specialties. May plant, cultivate, harvest, perform post-harvest activities, and market crops and livestock; may hire, train, and supervise farm workers or supervise a farm labor contractor; may prepare cost, production, and other records. May maintain and operate machinery and perform physical work.
9. Farm Equipment Mechanics - Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.
10. Farmworkers, Farm and Ranch Animals – Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas.
11. Farm Labor Contractors – Recruit, hire, furnish, and supervise seasonal or temporary agricultural laborers for a fee. May transport, house, and provide meals for workers.
12. Precision Agriculture Technicians - Collect information about soil and field attributes, yield data, or field boundaries, using field data recorders and basic geographic information systems (GIS). Create, layer, and analyze maps showing precision agricultural data such as crop yields, soil characteristics, input applications, terrain, drainage patterns and field management history.

13. Agricultural Engineers - Apply knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products. Prepare reports, sketches, working drawings, specifications, proposals, and budgets for proposed sites or systems.
14. First-Line Supervisors/Managers of Agricultural Crop and Horticultural Workers- Directly supervise and coordinate activities of agricultural crop or horticultural workers. Inspect crops, fields, and plant stock to determine conditions and need for cultivating, spraying, weeding, or harvesting. Assign duties such as cultivation, irrigation and harvesting of crops or plants, product packaging and grading, and equipment maintenance.
15. Agricultural Inspectors - Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety. Inspect agricultural commodities and related operations, as well as fish and logging operations for compliance with laws and regulations governing health, quality, and safety.
16. Agricultural Sciences Teachers, Postsecondary - Teach courses in the agricultural sciences. Includes teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation.
17. Graders and Sorters, Agricultural Products - Grade and sort products according to factors such as color, species, length, width, appearance, feel, smell, and quality to ensure correct processing and usage. Discard inferior or defective products and/or foreign matter, and place acceptable products in containers for further processing.
18. Agricultural and Food Science Technicians - Work with agricultural scientists in food, fiber, and animal research, production, and processing; assist with animal breeding and nutrition work; under supervision, conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects. Includes technicians who assist food scientists or food technologists in the research, development, production technology, quality control, packaging, processing, and use of foods.
19. Agricultural Technicians - Set up and maintain laboratory equipment and collect samples from crops or animals. Prepare specimens and record data to assist scientist in biology or related science experiments. Record data pertaining to experimentation, research, and animal care. Plant seeds in specified areas, and count the resulting plants to determine the percentage of seeds that germinated.
20. Farm and Home Management Advisors - Advise, instruct, and assist individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Demonstrate procedures and apply research findings to solve problems; instruct and train in product development, sales, and the utilization of machinery and equipment to promote general welfare. Includes county agricultural agents, feed and farm management advisers, home economists, and extension service advisers.

Illustrating the depth of the Framework using “Crop and Livestock Managers” position as an example

These categories of data are available in ProfileSense for all 4500 position

1. Description for Crop and Livestock Managers

- Direct and coordinate, through subordinate supervisory personnel, activities of workers engaged in agricultural crop production for corporations, cooperatives, or other owners.

2. Potential Responsibilities for Crop and Livestock Managers:

- Record information such as production figures, farm management practices, and parent stock data, and prepare financial and operational reports.
- Confer owner and coordinate logistics for the sale and transportation of crops.
- Coordinate with other farmers for raising of crops, or for management of crop production.
- Evaluate the yield of the crop and prepare basic records of yield production.
- Analyze soil to determine types and quantities of fertilizer required for maximum production.
- Purchase light machinery, equipment, and supplies such as seed, fertilizer, and chemicals.
- Assess local market conditions to determine acreage allocations.
- Direct and coordinate worker activities such as planting, irrigation, chemical application, harvesting, and grading.
- Inspect orchards and fields to determine maturity dates of crops, or to estimate potential crop damage from weather.
- Hire, discharge, transfer, and promote workers.

3. Proficiency in Farm Tools needed by Crop and Livestock Managers:

- Animal husbandry equipment — Animal feeders; Artificial insemination kits; Cattle chutes
- Cultivators — Rototillers; Spaders
- Harvesters — Grain carts
- Haymaking equipment — Hay balers; Hay cutters
- Sprayers — Pesticide sprayers; Weed sprayers

4. Knowledge required by Crop and Livestock Managers:

- Food Production — Knowledge of techniques and equipment for planting, growing, and harvesting food products (both plant and animal) for consumption, including storage/handling techniques.
- Basic Accounting — Knowledge of accounting to maintain a ledger to log yield and production
- Local Languages — Knowledge of the local languages, knowledge of basic English will be an advantage
- Administration — Knowledge basic principles involved in managing the workforce, such as monitoring absences, conflict resolution. Knowledge of production methods, and coordination of people and resources.
- Law and Government — Knowledge of local regulations on water utilization, waste disposal
- Mathematics — Knowledge of arithmetic, and statistics, and their applications.
- Biology — Knowledge of plant and animal organisms, their basic anatomy, functions, interdependencies, and interactions with each other and the environment.
- Geography — Knowledge of principles and methods for crop handling during drought and floods

5. Skill required by Crop and Livestock Managers:

- Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Speaking — Talking to others to convey information effectively.
- Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Management of Personnel Resources — Motivating, developing, and directing people as they work, identifying the best people for the job.
- Reading Comprehension — Understanding written sentences and paragraphs in work related documents.
- Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Writing — Communicating effectively in writing as appropriate for the needs of the audience.
- Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.

6. Work style required by Crop and Livestock Managers:

- Integrity — Job requires being honest and ethical.
- Dependability — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- Attention to Detail — Job requires being careful about detail and thorough in completing work tasks.
- Initiative — Job requires a willingness to take on responsibilities and challenges.
- Independence — Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.
- Analytical Thinking — Job requires analyzing information and using logic to address work-related issues and problems.
- Cooperation — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- Self Control — Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.
- Adaptability/Flexibility — Job requires being open to change (positive or negative) and to considerable variety in the workplace.
- Leadership — Job requires a willingness to lead, take charge, and offer opinions and direction.