

## FINAL SUMMATIVE EXTERNAL EVALUATION REPORT

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**RE: PROJECT ENTITLED: “Usando Tecnologías de Información y Comunicación (TIC) para mejorar la productividad y el ingreso en el sector informal urbano de la economía: un estudio de caso y proyecto piloto en la Ciudad de Panamá”- No. 104121**

### Introduction/Purpose

The intent of this summative evaluation report is to comment upon the project as a whole: reflecting as activity wraps up, offering commentary that approaches the content of work completed in greater depth, and suggesting ways to optimize results for future possible work. As opposed to the previous three reports, which were “formative” (that is, they intended to address the rate and quality of progress ongoing throughout the course of implementation in a timely way that allowed for adjustments to the work itself), this *summative* report seeks to establish a more philosophical and strategic treatment. The observations and recommendations in this report are thus based upon the initial technical draft report of the project, upon inspection of products, processes, participation, and conversations and team meetings with staff, particularly PIs in this case, engagement over the entire period of activity, and upon the experience and knowledge of the evaluator.

Typically the summative evaluation is submitted once all project activity is completely finished and all final performance reports are submitted. However, in this case, the opportunity to influence the direction of the final assembly and dissemination of results (including the summit meeting of stakeholders) as well as the research agenda, led to the decision for this summative evaluation to be submitted at this original deadline date, despite the project’s extension. Therefore, in addition to the traditional uses of summative evaluations, this report will also remark on ways to maximize the outreach potential of these final activities and deliverables, and it is hoped, it can be used to advance the research and action agenda of the last period of implementation toward continued future work and provide some justification and direction for follow-on proposals.

Three summative purposes are thus addressed here, in this order:

- 1) to review the original project goals and objectives and comment upon the extent of alignment of the project outcomes and deliverables with those goals;
- 2) to summarize a few lessons learned over the course of the implementation, particularly paying attention to which assumptions of the project thesis might be refuted or substantiated; and
- 3) to comment on future directions and make recommendations for “what next” – including in this case, themes that might be expanded upon for the final dissemination engagement with stakeholders and towards future project proposals / research agendas that build upon the relationships and networks that were established over this term.

## **1. Alignment of Goals and Outcomes**

As reported in the formative evaluations, the project team has faithfully followed the intent of the effort, carefully referring research and action to the explicit goals and objectives as proposed. Thus the outcomes and deliverables are well aligned with the purpose of the program and have made focused and significant progress towards address the overall question of how can ICTs help informal sector urban workers benefit from, rather than being marginalized by the global economy? Clearly, a single year project is not a sufficient period of time to fully explore the multiple dimensions of responses to this inquiry; however the fact that it was conducted as an integrated research-action project has lead to the development and strengthening of the foundation of knowledge and relationships that will allow for further questions and answers to be significantly advanced.

These explorations, the data, and the relationships forged to date relate both to the e-economy, specifically regarding strategies to take advantage of ICTs in the informal economy, and secondarily, e-enablers, in terms of the project's successful development and testing of a variety of offerings for skills training and capacity building experiences targeted at the level and documented needs of underserved and economically marginalized urban communities in Calidonia.

Thus the research outcomes of the project, geared towards understanding the current use and potential of the use of ICTs by informal sector urban workers, to help them benefit from, rather than being marginalized by, the global economy have been:

- 1) Production of qualitative and quantitative assessments regarding the baseline use of ICTs by a diverse population of informal workers, including men and women, within the case study area of Calidonia, Panama City. The project documentation includes a baseline study of the use of ICTs and of the adoption and adaptation thereof by study participants.
- 2) Identification of appropriate technological ICT solutions oriented toward empirical needs and opportunities, particularly drawing upon the organically derived (emergent) categorization of informal work at the level of current use among the community. As documented in the project reports and summaries, these tend to focus mainly on cellular phone and basic internet and computer use.
- 3) Analysis of the varied adoption and adaptation processes of ICT technologies within the economic activities undertaken by informal workers along dimensions of gender, income, age, and other demographic characteristics, planned to be further explored in final project deliberations such as the stakeholder meeting and for future proposed projects. Namely, the project was able to identify who are the users to drive adoption that further diffuses to other members of the community, and how that information passes (e.g. word of mouth). Additional time to research these dynamic processes as they continue to unfold (particularly given the recent introduction of ICT opportunities) will comprise an interesting and important aspect of future research agenda items and can be refined with further study now that a very large and rather comprehensive set of baseline data have been established.
- 4) Determination of the potential activity domains that could potentially increase income, productivity, or other economic measures, on the basis of the empirical data and especially interviews with participants that highlight emergent possibilities, deriving from the ingenuity and innovative capacity of user-beneficiaries, although the timeframe of this one-year

project does not enable full analysis of indicator changes over time. Again, the baseline established through this period of research presents a wealth of opportunity for addressing these kinds of time-series inquiries in greater depth in future phases.

- 5) Extensive and careful detailed documentation of the methodologies used throughout the project, including alterations in approach and rationale for refining methods to achieve project goals. This documentation contains the necessary elements for production of a process-model that can be replicated over time and space (e.g. in other areas of Panama City, other regions in Latin America, or at future dates within the original study area of Calidonia) toward creating appropriate technological solutions matched with empirically defined needs and opportunities. In my opinion, this may be one of the most significant outcomes of the project whose worth should not be underestimated.

Among the benchmarks towards objectives related to implementing activity for building a system that can provide informal sector workers with access and training in ICTs are:

- 1) The creation of relationships, lines of communication and trust with the informal sector working community in the lived spaces of Calidonia. Access to the project team and project activities was established directly, due to the high caliber of the field personnel and the careful training by PIs and even included the engagement directly of informal workers in (paid) project staff positions. It was also fostered indirectly within the space of their community by utilizing training sites in the neighborhoods (e.g. Infoplazas) to capture and augment existing capacity rather than recreate or duplicate efforts.
- 2) Training of informal workers on the (paid) project team in computer and cellular technologies during implementation of the project.
- 3) Training of a target population of informal workers in the use of ICTs, especially general computer skills, internet skills, cell phones, according to the scheduled deliverables, namely reaching more than 100 people at various levels of intensity.
- 4) Provision of capacity building in e-commerce and other skills as determined by empirically informed community diagnostic assessment, and integrated within the technology training to make better sense of the connections and utility of ICTs for the potential to improve informal worker incomes / productivity.
- 5) Publicizing of the results of project through the (planned) Stakeholder Meeting, development of publication manuscripts and presentations, and of course the detailed project website.

In addition to the set of deliverables for this first phase being complete and aligned to address each of the research and action objectives, three additional (expected) deliverables are also contributing in a significant way to optimize the impact of the project, namely through the Research Agenda for future studies of ICTs and the informal economy and the Stakeholder Summit (e.g. Capstone Event) planned for January 2009. These two additional deliverables, along with the current set of outcomes \poise the project to become a model for regional scale-up. The third additional deliverable, in the form of a digital video documentary about the project, is expected to help build a shared vision for continued progress toward goals, in addition to exploring the most important outcomes of the project in a visual and engaging way. It will also be valuable to donors in reaching beyond the scientific and local communities into an international audience.

## **2. Lessons Learned**

Beyond consideration of the manner and extent to which the project advanced its goals and objectives, it is imperative to note that the implementation generated important contributions to the body of knowledge about the conduct of research and action toward using ICTs to support the informal sector. I summarize here what I see as a few of the most important lessons learned over the course of the period and give some attention to which assumptions of the project thesis might be refuted or substantiated.

a) Among the principal starting points for the project choice of design rested with the belief that user innovation and improvisation are the keys to discovery. While it may not be immediately apparent from the formal quantitative data, the qualitative and anecdotal evidence gathered by the team support this notion. Project reports and the final summary will provide ample instances of early moments of user innovation, for example: one participant exuberantly discovered that she could learn techniques for how to perform particular kinds of manicure / nail art by looking up websites on the subject through Google, and even perhaps refine that knowledge to teach peers for compensation. Such discoveries seem deceptively simple as ways to use ICTs to improve income, but precisely because they are so simple, they might have otherwise been overlooked by traditional approaches that would have been overburdened with *a priori* solutions.

b) A related lesson is that the integration of research and action within the process model is a critical element of any project that aims to effect change. Empirical data and theoretical perspectives were combined in an iterative and flexible way, allowing for realities to drive knowledge production, and action to become knowledge-based.

c) Furthermore, the interactive relationships between project team members and project participants – and indeed the active involvement of informal economy workers in the study tasks as paid staff – reinforced this connection between research and action, to the benefit of the project. It was noted early on, that trust was critical, and even it may be said represented an obstacle to be overcome, but in the end the relationships flourished and clearly influenced the project's outcomes.

d) It is thus also obvious that to maximize impact, such projects need an extended period of time for results to emerge. In this era of instant results, overuse of “rapid assessment” methodologies, and a dearth of opportunities for long-term support of ongoing efforts, this project made a surprising amount of progress in a limited time. As noted above, relationships and trust-building do take time, and once established they should be supported and maintained. It is my recommendation – or perhaps it should be considered a warning – that this effort should continue without pause. Otherwise these relationships may sour. Informal workers may not only lose trust in the project team, but worse, they may develop resentment and refuse to cooperate with any efforts in the future due to disillusionment. It is a critical risk that their enthusiasm, which took months to develop, may wane into disappointment and even outright hostility should the promise of what has been demonstrated not be follow through. I strongly advocate for multi-year initiatives, particularly those that are periodically reviewed for quality assurance, that allow an extended time for the processes to unfold. Adoption of ICTs itself takes time to happen, not to mention the adaptation

and innovation that can ensue after users become more and more familiar with how they might potentially benefit from ICTs. Similarly, the dynamics of the system emerge over time and should be studied at various intervals over time.

e) Another premise of the project design advanced that synergies derive from complexity, so that incorporating a sufficiently diverse system of activities *within* a particular community area optimizes impact (e.g. the area-delimited case study methodology). This perspective recognizes entrepreneurs not so much as separate individuals but rather as (informal) participants in a *system* of economic activity. The potential to explore this dynamic has become clear from the project's efforts, particularly looking at the organically derived classifications and the spatial arrangement of georeferenced data. To wit, it was established that Calidonia itself is a rather stable, long-term community as it relates to the informal economy and that linkages among its participants are thick and complex – for example fruit vendors with business relationships to *chicha* (fruit drink) sellers – leading to the hypothesis that improvements to targeted components of the system may have positive impact upon the system as a whole. However, this is another question that could and should be explore in greater depth, and perhaps in comparative ways (over time and/or space) in future research.

f) Location of project activity – engaging with the informal economic community where they live and work – is indeed an important consideration. The project utilized existing Infoplazas and sites that were more likely to be familiar to participants as training centers. These “incubation” spaces then later hold the potential for the community itself to take on and own the project, its goals, and even implementation aspects such as peer-to-peer mentoring.

g) Location also matters in a different way, in the sense that the Calidonia community was verified to be a relatively stable site for informal economic activity, due to its very long term involvement, even to the point of revealing interesting business inheritance relationships. The GIS and spatial data developed through the project offers unique potential to explore locational inquiries within the study area, but also lend well to comparative studies with other locations in Panama City that are more dynamic over time, or that may contract and swell with changing economic context or different traffic patterns, construction, and so on. The lesson here is that research on the informal sector should carefully consider the place-based context and spatial pipeline relationships in order to better understand not only how the informal sector works, but also how incomes and productivity might be improved.

h) Finally, partnerships must be carefully managed. Expectations can become unrealistic if inaccurate information or inappropriate engagement or unauthorized activity is permitted to take place. The research aspects themselves needed to proceed under careful balance of preserving respondents' trust, confidentiality, and follow-up, which grows more complex when additional partners are involved. However, it is also important for “champions” within multiple organizations to work together and for stakeholders to commit to a shared vision for success. Key to striking this balance is having strong project PIs with diplomatic skills and social networking techniques as well as clearly defining from the outset, the roles, responsibilities, and benefits of partners participating, which this project was able to do.

### **3. Future Directions and Recommendations**

What next? As noted, in the final two months of the extended project, the team will finalize activities related to in-depth analysis and dissemination. These suggested themes in this section do not represent all possible avenues, but offer some thoughts on topics that might be expanded upon for the research agenda, final dissemination engagement with stakeholders at the Capstone Event, and/or towards future project proposals for external support.

The kinds of themes that are suggested for consideration in the near term finalization of the project (e.g. white papers, manuscripts, presentations, etc.) should closely relate to the already available data, ongoing analysis, and project goals. Care should be taken not to pursue tangential, although interesting, questions or themes that would require a significant additional investment in data collection, etc. since there are ample themes that could be feasibly explored with what is on hand. Note however, that such tangential themes should be collected in the form of possible future research questions as part of addressing the core themes. Such feasible questions to raise and/or address *might* include but are *not limited* to the following:

- a) GENERAL: To what extent do ICTs have the potential to help informal sector urban workers benefit from, rather than being marginalized by the global economy? What is this potential for improvements in income, productivity or other (less tangible) benefits?
- b) LEARNING: Which ICT technologies in particular and which ICT skills are most valuable to informal economic workers (in the pilot study, at least)? What kinds of curriculum and pedagogy successfully can be deployed for building capacity?
- c) SPATIAL ANALYSIS: What kinds of questions, analysis, systems, and models could be developed with the spatial data from the project to address income and productivity improvements for the informal sector? What hypotheses on complex systems could be tested through such analyses?
- d) EMERGENT INNOVATION: What kinds of user innovation emerged from the project? What new skills were improvised by participants? What future plans do informal workers see for using ICTs to improve their economic situation or otherwise benefit?
- e) METHODOLOGY: How did the research/action process unfold, what changes and adaptations to the approach were made and why? How might this project be replicated elsewhere? What were the lessons learned? What are some best practices developed as a result? How was the methodology unique?
- f) GENDER/AGE: What special considerations were discovered relating to female workers in the informal economy? How does age play a role in the way and the extent to which participants use or benefit from using ICTs? What potential exists for supporting various demographic communities in future efforts?
- g) ADOPTION: What is the baseline use of ICTs in the pilot area? Who tend to be the first to adopt? To adapt? How does diffusion occur?
- h) TYPOLOGY: How was the categorization of sectors derived and what were the results? How did this empirical definition shape the rest of the project? What are the needs and differences among categories of informal economic sectors?
- i) CONTEXT: How does do the project results/outcomes fit into the larger picture of the global economy? The literature on informal economy and ICTs? Other literature?

Activities amenable to a second phase of the project might entail:

- Replication of the Research/Action Project in Other areas of Panama City and Comparison Studies with these results
- Conversion of the Pilot Project Training Offerings into a Full Program in Calidonia (and/or elsewhere) to reach more numbers of participants (demand is demonstrated)
- Repeat of Research aspects in Calidonia to demonstrate change over time / address other relevant questions from agenda in depth
- Production and Testing of Peer-to-Peer Capacity Building Activities and Materials based upon those generated from this project
- Individual smaller projects that take particular themes in the Research Agenda for future studies of ICTs and the informal economy
- Sustainability / Scale-up Plan (including on-demand regional workshops)
- More Stakeholder Events around research agenda
- Amplification of Project Website and Dissemination / Publicity, particularly utilizing the video documentary to reach out across Latin America
- Conversion of the GIS / spatial database into an Online Toolkit
- Development of dynamic modeling of informal economic activity to generate a systemic view of the sector and how ICTs might be applied
- Synergy with other relevant ongoing research, such as investigation of informal worker productivity related to transportation systems and links with ambulant vendors
- Adaptation of the extensive documentation of process / methodology into a user-oriented, online process model (akin to a how-to manual) for replication / regional scale up
- Set up a platform for more intensive engagement with partners now that the research/action foundation is set, e.g. issue a request for proposals as sub-grants to stakeholders for exploring how to add value to the project

At this particular moment in history, the current global economic crises also presents interesting kinds of questions which this project is uniquely poised to address, given its recent baseline establishment of data and relationships: How do informal economy workers manage during a global economic crisis? How might their use of ICTs mitigate negative effects? Do they suffer disproportionately or does their status as marginal to the formal global economy insulate them somewhat? What innovations emerge and what is the role of ICT in this recovery period?

One final recommendation: while the final stages are being completed, because the limited nature of the project will not be able to address all of the ideas and emergent questions or opportunities, the team should incorporate a process to capture needs for future projects, funding proposals, or collaboration agendas. Not only would this make for better documentation on the current effort, but it would also improve a future planned proposal, and help the team continue to effectively manage expectations of team members, collaborators, participants, and donors as this project ends.

Firmado:



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