

**RESEARCH REPORT**

***"Measurement model of value engineering  
in human resources for teleworking experiences" <sup>1</sup>***

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**Resume:**

This report presents the results of the investigation that ended in a proposed model for measuring value creation in the human resources engaged in the experience of telework, which includes the main methods, techniques, tools, recommendations and the steps to follow when getting objective the maximization of the output that has meaning for the worker (human resources) and for the organization, company or entity (internal and external customers) to implement a telework experience in the globalized world competitive today.

**KEY WORDS - KEY WORDS:**

IMPLEMENTATION OF TELEWORK

VALUE CREATION

HUMAN RESOURCES

**Introduction:**

Telework in the globalized world we live in is a reality whose research and development deserves particular attention as it has been shown, worldwide, that their results are considered as potential, since they have always managed to turn vicissitudes and difficulties that might present to implementation objectives have been overcome and that mostly overlapped by the benefits to be generated in both the worker (internal customer) and their subsequent results in the company (or other external client) or any modern organization competitive in this globalized world.

We now know that the evolution of the Information Society is not merely the adoption of technologies but crystallizes in a change of mentality that leads individuals to adapt to new realities and benefit from them, ie: talk of technologies to serve our needs. Thus the Information Technology and Communication (ICT) are now becoming essential tools for improvement and social development and to create a new environment that are modified: the customs, lifestyles and most importantly, labor market and the business world, where the new manifest embodiments of employment benefits.

In this context, telework is born not only as a revolutionary delivery system work, but as a new modern work organization and competitive. In fact, telework fits the requirements of the new production

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<sup>1</sup> GRADUATE THESIS entitled "Proposal for a measurement model of value creation in human resources for teleworking experiences in private sector companies" ©, by: Robert Ballon Bahamondes in September 2011, at the University of León-Spain.

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processes and decentralized network, flexible scheduling, reconfiguring traditional aspects of work orientation and redefining it to work by objectives and results, creating a number of benefits for maximizing the expected result by companies, as well as on internal customer satisfaction (employee) can generate this way the human resource value.

As we know telework for workers means greater job opportunities, personal choice of working environment, more free time available, the ability to improve performance and productivity by providing flexible schedules and a better quality of life, because they generate less stress and less travel and more family life, among others, and in turn, for the enterprise means an opportunity for cost reduction, increased productivity due to the implementation of work objectives and the ability to modify working hours and the elimination of time control and work absenteeism, and reduction or even elimination of problems of coexistence between employees.

For its part, the "value creation"<sup>2</sup> in the workforce is still one of the difficulties that has modern human resource management in the analysis of intellectual capital to show their real influence and impact on business results, and has not been prioritized technical methodologies developed that describe, analyze or to demonstrate its real benefit and advantage applicative or practice.

In this context the present work studied the methods, techniques and tools that have proved most suitable for analysis resulting in allowing for the quantification and qualification of the generation of intellectual capital value of human resources of those companies private or public sector that choose to implement telework success stories, so they designed a model proposal for measuring value creation for teleworkers.

In its execution, tools, techniques, methods, principles, and recommendations analyzed configurations allowed to consolidate the model formulation in order to be established as an alternative to actual application and is useful for human resource managers and especially for companies or organizations that have chosen to implement teleworking as part of its strategic process of continuous improvement.

Within the theoretical content of it first gave an overview of the location of the human resource called the second decade of the century and its relationship to the experience of telework, and then briefly discuss the importance of this new form of work in today's globalized world requires specialization, differentiation and continuous improvement necessary to achieve competitiveness in the market.

It also was reviewed by the principal methods of measuring intellectual capital, methods of work study in the main office and telecommuting experiences that include in their analysis, the measurement in the human resource elements in set allowed me to find key resources to propose a model for measuring value creation in teleworkers.

Finally, we discussed the proposition of the model that includes the main requirements, steps, methods and recommendations to measure the degree of value creation translated into tangible and intangible elements of human resources included in the experience (as a pilot or project) implementation of telework in any organization.

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<sup>2</sup> It will be important now, in effect, establish in advance that "value" and "value creation" are not equivalent. To tell the Mile (2002), "a company may have a high value compared to other companies or for their book values and yet be destroying that value and vice versa. To create value is necessary and appropriate that the yield obtained by shareholders exceeds the required return, expressing this as the return that could be obtained in alternative investments of similar risk."

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In this way, I believe that this research constitutes a contribution for scholars and human resource managers, as well as new forms of employment benefits and implementation of new technologies, as shown in a thoughtful consideration of alternatives and with minimal which should seek to obtain a positive result on the measurement of value creation in human capital and competitive modern organizations, and in turn also configured as an important tool for any organization that requires determining the quantification the human resource value engineering in having chosen to implement telework for improving the results.

One precaution is that if it is true for the configuration of the present investigation were taken for analysis elements present in the private business sector does not imply that the measurement model can not be perfectly executed or implemented in the public sector, with the only condition necessary for its implementation at least the Public have an area, leadership, management or Human Resources management experience who can manage and run the model proposed here. It is also important to consider what their contribution, as it will recognize the possibility of value engineering in human resource organizations or public bodies, where normally the recognition of the skills of workers is not something that has deserved a special attention.

Without further ado, I share with you a brief report summarizes the main results from the research:

### **1. JUSTIFICATION.** -

Background, rationale, motivation and research problem:

The background to this research lies in the two previous investigations that take place on the topic of telework. The first aimed to demonstrate the existence of means for the adaptation, adoption and implementation of teleworking in the Peruvian private sector companies and proposing adequate legal regulation and, in turn, the second investigation aimed to propose a telework implementation model, taking into account the results obtained in the first.

In the first case, the research entitled: "*Implementation of telework in the Peruvian private sector and promoting normative regulation*"<sup>3</sup> among its main results show that the market could work in the region of Tacna, Peru, taken as a sample, had the means for adaptation, adoption and implementation of telecommuting, and also showed some resistance from the business sector to implement it taking into account that there are still many experiences with which to compare and not counted in Peru with a protective legislative framework for which included recommendations for the legal regulation of telework according to the Peruvian labor actually the same which formed the basis for the development of literary production: "*Telework for Peru: towards promoting legal implementation*".<sup>4</sup>

Second, the research: "*Proposed Model for implementation of telework peruvian private sector companies*"<sup>5</sup>, and responding to the concerns of business, and after having given the legal tools at the previous occasion, it was decided to provide a set of tools, techniques and methods outlined in a proposed implementation model can be regarded as the minimum that should require or wish to enter see if telecommuting as an alternative to improve profitability, maximizing results and creating value.

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<sup>3</sup> Thesis: "Implementation of telework in the private labor market Peruvian partner and developer normative regulation" ©, completed in August 2006 by: Robert Ballon Bahamondes, before the University Tarapaca in Arica, Chile.

<sup>4</sup> Ballon B., R.: "Telework for Peru: towards legal regulation promotes its" ©, 1st. Ed 2007, Private University of Tacna, Peru.

<sup>5</sup> Graduate Thesis: "Proposed Model implementation of telework for companies in the private sector Peruvian" ©, completed in August 2009, by: Robert Ballon Bahamondes, at the Private University of Tacna, Peru.

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In this way it was possible to show that any methodology should follow an earlier stage, which can demonstrate, after a feasibility study, if possible the implementation and to what extent would guide the adaptation of teleworking to the needs of the company to then to proceed to an implementation phase where measures were taken to monitor, control and feedback through an external or internal guidance computer that was monitored and showed a progressive and final result according to the planning experience as or pilot project.

For the present case, as is known to students of telework, although it has failed to demonstrate the many benefits that can lead the implementation of teleworking experiences either for workers and businesses (in the latter case remembering that they can range from improving profitability, reducing costs, maximizing results, etc..) is also the alternative of creating value in human resources, but above all the latter turns out to be the least possible to be analyzed, quantified and measurable for decision-making.

In this sense the research problem fell to the absence of models that demonstrate the methods and techniques needed to get real results with respect to the value engineering of human resource in the experience of telework implementation in companies, responding to the question: is it possible to perform a measurement of value creation in the human resources engaged in a telecommuting experience that is inserted into the strategic planning of the organization and in the process of continuous improvement?

Obviously the answer to the question became the hypotheses to study, even considering the characteristic of descriptive research and proposal of this, so that after the study and analysis of intellectual capital measuring methods to the suits a human resource immersed in the experience of telework and that way you can check the result and impact of it under the organization's strategic planning process-oriented continuous improvement that translates all value creation in a medium-term investment and directly related to desired sustainability.

In this regard, and following the logical order of the research outlined above, is that in the present investigation we chose to conduct a study of methods for the analysis of value creation in existing human resources in any public or private company focusing its orientation towards the possibilities that would have on the implementation of a new way of performing work, where new features are clearly different from the traditional enterprise, and thus propose a model for studying the value engineering in the resource human experiences of teleworking will be extremely useful to entrepreneurs and organizations (public or otherwise) that require implementation, looking at telecommuting as an alternative optimization of results of intellectual capital.

## 2. OBJECTIVES.-

### GOAL:

- ✓ *Propose a model of analysis and study of value engineering experienced in human resources obtained in implementation of telework.*

### SPECIFIC OBJECTIVES:

- ✓ *Analyze the main methodologies that should have any organization or human resource specialist chooses to adopt a continuous improvement process of the experience of telework.*
- ✓ *Provide a set of alternatives through the demonstration of what tools, techniques and methods are best suited for the measurement of value creation in the human resources involved in a telecommuting project.*

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- ✓ *Demonstrate the potential of telework and its effect on one of the processes that are part of the continuous improvement of an organization such as the value engineering of human resource, so as to base their contribution to the sustainability of the company.*

### **3. DESCRIPTION AND DETERMINATION METHODOLOGY.-**

Being a proposed model, the methodology chosen for this case was within the descriptive branch of the art research (which implies that we didn't refer to the temporal determination), for which the tools and techniques used necessary to obtain the result as: matching techniques, selection of bibliographic information and virtual processing summary documents, registration, observation, interviews and study of similar cases.

Regarding the sample was taken as the characteristics of a reference model implementation of telework in a company made more than 50 workers, Peruvian private sector that has a project feasibility analysis or implementation of telework implementation, which does not implies that the results obtained by the investigation are restricted only to be applied or implemented in private companies as they may apply to any entity or public body that has an area, leadership, direction or management responsible simply to make talent management human.

Regarding the proposal of the model applicability, it can be applied in preference to workers who already have some experience in the business, and was written with an analysis of the work compared with and without telecommuting as well as an analysis regarding the development of human resources within the experience of telework, but not comparing this result with that of another company with similar characteristics.

In this regard, we have evaluated and measured various factors inherent in the human resource that is part of the implementation projects, ranging from its adaptability to change, how they have influenced the new organization of work relating it to the flexibility in managing time and how it has made leisure, among others. It has also analyzed the influence it has had the experience in personal and family life, highlighting the experiences that have developed from the point of view of social inclusion and disabled pregnant women considered fundamental contributions to the advent of new proposals oriented work systems and increase their participation within organizations.

### **4. MODEL DEVELOPMENT. -**

First we must remember that our proposal to analyze the value engineering of human resource must be informed by the existence of a pilot or implementation project teleworking, which determined to be required to obtain this result the product of experience. To do this we must remember, following the logic of other similar proposals, which need to be taken as the basis of certain principles and assumptions within which we can summarize:

#### **Principles of our model:**

- a) Alignment with the vision, mission and objectives of the company.
- b) Alignment with business strategies and project implementation of existing telework.
- c) Commitment of top management to implement the model within the implementation project.
- d) Commitment of the parties involved.<sup>6</sup>

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<sup>6</sup> In the latter case, both the evaluation team as the teleworker and direct employers must engage directly with the successful experience and achievement of the outcome of measuring value creation.



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**Assumptions for model configuration:**

- a) Telework is itself a different and special to perform and organize work so that it will keep the same considerations and conditions, and the benefits that a worker is included on the payroll, appointed or plant principal place of business or organization.
- b) Teleworking is not necessarily alternative but complementary to the inner workings of the company and its implementation will require a real change in the organizational culture of consensus, performance management, negotiation and renewal of the commitment of trust between all actors involved.
- c) Understand the need for the creation of a new organizational culture and policies within the organization involving a mutual benefit for all parties involved (both employer and employees as a company).
- d) The analysis and study of the value engineering of human resource should take into consideration not only its expression in tangible improvement in the company but also the impact of intangibles, namely the personal factor of growth and satisfaction worker (as internal customers) to be included in the experience of telework. Therefore should be taken into account based on a clear understanding of:
  - a. Awareness of the quality of performance by the employee based on a critical (subjective) and an estimate of the distances to perform as expected or individually desired (target).
  - b. Definite knowledge (both the employee and the company) of the impact of scientific and technological knowledge and therefore the information at work.
  - c. And finally accepting that the company must have plans that contribute to quality processes and continuous improvement and therefore to provide the necessary conditions to achieve objectives with a modern and competitive.
- e) To carry out the model must have been previously performed and demonstrated the feasibility of the pilot or implementation project where it is understood telework already analyzed the personal characteristics, abilities and skills of human resources that will be part of the experience.

After having clearly understood the configuration structure of the proposed model can begin to implement it, the same shall consider the following:

***a) Establishment of project objectives:***

Among the main objectives to consider: a major aim and specific objectives that call OP and OE.

**OP:** Measure the value engineering of telecommuters for better decision making in managing the human capital of the company.

**SO1:** Get real results of how the teleworker has played through the experience.

**SO2:** Make decisions about the results to optimize their use, through the best possible solutions.

**SO3:** To demonstrate the influence of new forms of work organization on the company results in comparison with traditional methods.

**SO4:** Generate a new organizational culture focused on optimization of human resources experience including them in implementing working systems and modern technology.

***b) Definition of stages of the analysis procedure:***

With regard to the determination of the stages of our model, from planning to obtain results through indicators, they were limited to the plan or implement telework model selected by the company, why was not considered considering a schedule that is also ascribed the delay to a major project, but will not

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prevent some steps have been appointed to consider preclusive <sup>7</sup>, so we estimate that the minimum steps that should tell you all analysis are <sup>8</sup>:

- ✓ Collection of information.
- ✓ Determining previous diagnosis.
- ✓ Establishment of indicators.
- ✓ Selection methods and / or measurement systems.
- ✓ Implementation of the model.
- ✓ Obtaining the result.

### *c) Identification of personnel involved:*

To determine the personnel involved should carry out a special analysis because, as human resources, will be the focus of the study of our lag in the model, so it is important to guide the team prior experience implementing telework taken into account that for a teleworker to perform successfully must first assess whether minimally account <sup>9</sup>:

- ✓ Level of responsibility and maturity to work.
- ✓ Ability to organize and discipline.
- ✓ Experience in the role to play
- ✓ Ability to communicate.
- ✓ Initiative, proactivity, and creativity.
- ✓ Adaptability to change.
- ✓ Access to form teams.
- ✓ Preparation in the technical field.
- ✓ Technical preparation in information technology.
- ✓ Have a good working environment.

As for the competitions was estimated as follows: Within the objective we find skills related directly to work (requirements, deadlines, procedures, quantity, form, etc.), while within the subjective we can find a set of skills inherent in resource allows them to develop human and function within the organization, and those that allow you to contribute to organizational culture (personality, teamwork, proactivity, responsibility, etc.). In this way was important not only take into account their personal characteristics, referred to above (experience in the field, communication skills, ability to interact as a team, knowledge of computer systems, etc.) But also environmental conditions where they will play the teleworker to integrate this way factors in the analysis more complete measurement to determine their influence within the experience.

We must remember that changes in orientation and paradigms are motivated by three beliefs: 1) the employee performance depends heavily on human resources activities, 2) the quality of strategic decisions that senior management takes is linked to the quality of data on human resources that are used during the process of decision making and 3) the successful implementation of strategic goals and objectives is contingent on how to carry out human resources activities: selection, evaluation performance, training and development and the consequent retribution <sup>10</sup>.

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<sup>7</sup> Shall be defined as "preclusive stage" the configuration in a system that must be met in a particular order. This way you can make a stage if not developed, implemented previously completed or another.

<sup>8</sup> Included at the end of this report containing the configuration diagram, stages and phases of the model proposed here.

<sup>9</sup> In most cases one must consider that not all workers will have these skills, so the work will be important to develop human resource analysts or team elected to do so, and after studies to identify the most capabilities described above and to enhance or reinforce not have the proper preparation and training prior to the experience and consistent implementation of our model.

<sup>10</sup> Chris Mabey, Graeme Salaman and John Storye, Strategic Human Resource Management: A Reades. sage 1998.

**d) General criteria for measurement. -**

In this section, and subject to enter details of the embodiment of our model in the first instance we will give some guidelines for the establishment of indicators, we consider them essential for every model of measuring value creation in the intellectual capital.

To do this we must remember that the main elements related intangible intellectual capital efficiency in general liable to be measured are: satisfaction, communication, the socio-labor, vocational training, a sense of belonging, the ability to innovation, leadership, skills, motivation and teamwork, and they should focus on those indicators that show the main indicators of efficiency and associated measurement tools related to the teleworker. Among them we can emphasize not limited to, but not limited to <sup>11</sup>:

- Rate of internal customer satisfaction oriented work performed outside the office.
- Rate of improvement in meeting internal customer needs through the experience.
- Index of frequency of communication and influence with the result.
- Rate of use of technological resources for communication.
- Index of labor disputes affecting the productivity and performance.
- Index of participation in extra-institutional working with colleagues.
- Index of professional training and new technology and informatics.
- Performance Index daily, weekly, monthly, etc.
- Rate of use of free time for personal and family development.
- Rate of resolution of difficulties in technical problems.
- Index of predictivity of the facts and proposed solution.
- Index and problem solving labor disputes (communication, interpersonal, boss, worker, etc.).
- Index of the level of management and administration of information technology.
- Index of questions about computer problems.

**e) Election of ad hoc method. -**

After completing our planning time, resources and selected workers as well as the main indicators of measurement corresponds to choose a measurement model of intellectual capital, whose statistical formulas, tools or techniques are useful to us to fulfill our objectives. To do this in the propositional (theoretical) research developed the characteristics of the main methods of measuring intellectual capital which suggest as the most suitable to measure value creation in the human resource of telecommuting experience.

Among the most important can be found: the organizational level measures: Tobin's Q, Intangible Value Calculation (VCI), Economic Value Added (EVA) and operational level measures: a) Balanced Business Scorecard (*Kaplan and Norton, 1990 -1996*), b) Model of Strategic Management Competence (*Good, 1998*), c) Model GCI (*Patrik H. Sullivan, 1998*), d) the Value Explorer (*Andriessen and Tiessen, 2000*).

We believe that the method should be selected according to the objectives being to practical effects of our model we allow an analysis component by component, ie the operational level. It is recommended that any method for the measurement should be considered a factor that allows comparison actually see more results and to compare the effective generation of integral value in the human resource that is included in

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<sup>11</sup> The establishment of indicators will depend on the objectives set about measuring factors more objective or subjective impact on the human resource value engineering.



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the experience of telework versus that remained in the physical center of the company, as well as one that allows us to measure the evolution of human resources within the same experience.

### *f) Implementation. -*

As indicated throughout, for this case our model should consider the following recommendations:

#### **1) Selection of the sample for the study:**

For the selection of the sample should be aware that that is sufficiently representative in quality and quantity to perform an efficient analysis of selected indicators for measuring noting that, as discussed above, the value engineering in our proposal not only measures inherent to the human resource factors, we might call intangible but also how it has improved its performance to the tangible results of the company, reflected in improved productivity with efficiency.

To this effect were taken into account in the descriptive part of this research a set of resources for work measurement in the office that allows us to obtain references and basic guidelines for the testing of results and to obtain indicators for measuring work translating some of the basic considerations to what would be the equivalent of the office space where to develop telework.

#### **2) Determination of measurement tools:**

As made the selection of the measurement method should be selected tools work measurement and the value engineering in human resources. Among the most significant surveys and we quote the most appropriate statistical methods. Sample surveys are proposed for all levels and for the latter were selected tools to analyze the work in the office, such as sampling techniques of activities, evaluation techniques of the time, times Default Rates (TTP) system, data type, self-registration techniques and quality control.

You need to determine the period or period when will the study, in order to quantify the set of activities taking place and the order in which they take place at a certain time, and thus a better result in the analysis of results is the next step of our model. For example if the period of implementation of telework within the overall project implementation is four months so our study and data collection should consider that period as an integral part of one of the results to be obtained to analyze the value creation in human resources involved.

#### **3) Analysis of results:**

For the analysis of results we will consider first the results obtained from the measurement of work in the office of a worker under normal conditions to observe their evolution data fulfilling the same activities of the worker who is teleworking. Although, this analysis focuses on management indicators of productivity factors, we must also analyze and reconcile some intangible indicators to those already mentioned in order to achieve a more integrated.

Step Next, observe the results obtained in measuring our results with the teleworker, taking into consideration the same measuring tools made for the office worker. Here we fall back into an important aspect for the purposes of our model is that the analysis performed allows to observe graphically the two yields for comparison and see how it has played the teleworker in contrast to a normal office worker in terms of productivity.

Then we can analyze the evolution of human resources within the experience, considering the time schedule according to our schedule analysis and applying the tools on a regular basis in order to observe their performance according to our measurement indicators, and this way we can achieve a more comprehensive and complete to the best decisions.

#### 4) Forms of control and monitoring:

In order to perform efficiently our model must take into account that for its implementation should involve the necessary professional who will maintain direct communication with the TEAM GUIDE leading the experience of telework, or may be selected within the same team before referral to the specialist to be responsible to track the process of measuring the value management of human resources teleworker.<sup>12</sup>

For ways to control the first experience to remember what transpired in the propositional part of it, when he was a relation of principles and assumptions that drive our proposed model, so that each of the activities made therein, including recognition in importance in communion with the mission and objectives of the company, top management commitment, active participation of stakeholders (managers, coordinators, team guide, telecommute, workers of the company, etc. .), established goals and existing strategies.

In this way the application of our model will become part of the new organizational culture of the company that recognizes the importance of implementing the system of telecommuting as an opportunity for growth and continuous improvement, but mostly as a modern alternative for obtaining the human resource value engineering in the company.

The control and monitoring forms are eg direct interviews with the worker to feel the presence of a support for their experience, periodic surveys, weekly, or biweekly both the worker and the supervisor and the employer, and reports newspapers made by the team supervisor guidance and experience, in terms of productivity: the number of reports issued and requested for the programmed amount of e-communications or communication used daily.

#### g) Final evaluation and presentation of final report:

For the final evaluation and final report should be taken into account:

- i. *The timeliness*: Thus it can be seen how the analysis developed, and note the period in which they applied the tools and assessments were conducted and the frequency of the performance of activities and their relationship with selected indicators.
- ii. *Critical Success Factors*: So that you can determine what were the most important points that allowed us to achieve the desired results which allowed us to be aligned with the objectives of the deployment model and therefore the objectives of the company.
- iii. *The difficulties encountered*: that consist of a description of the events that occurred during application of the model for studying the value engineering, taking into account the internal and external factors. Within the first we take into account the resource analysis, the team analyzer, the indicators selected and the corresponding measurement on the basis of the chosen tool. Within seconds we observe what situations or events disrupted the normal pursuit of work measurement, such as a delay, a change in corporate policies, lack of commitment among some of the actors, some change in the functions of analysis, among other.
- iv. *The way to measure*: It shall state what were the techniques used and their relationship with indicators of measurement and display a summary of the tools used and the participation of the measuring equipment.
- v. A graphical display of the results: you can use the form that best demonstrates the result must always show our case:
  - a) *Worker before the experience*.

<sup>12</sup> Team Guide here proposed should consist minimally of: a representative of the area of human resources who will lead, supported by a specialist in information technology and the immediate supervisor of teleworkers involved in the experience.

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- b) *Evolution of the teleworker during the experience.*
  - c) *Comparison of worker teleworker.*
  - d) *Value engineering in terms intangibles (personal, organizational culture, teamwork, communication, etc..).*
  - e) *Value engineering in tangible terms (productivity: performance, efficiency, cost savings: resources used, etc..).*
- vi. Feedback: You must show the results with the final recommendations about measuring success and will continue to propose telecommuting experiences that allow the creation of value in human resources embedded in them so that there is an internal customer satisfaction and this impact on the overall results of the company in the medium (profitability) and long term (sustainability).

### **5. CONCLUDING OBSERVATIONS:**

It is very important to locate the model proposed here in a telework implementation project that already has specific strategies for the successful achievement of the adoption of this new system of labor organization within the organization and in this way can be as a result of it to locate this measurement model generating human resource value as one of the ways to show the potential of telework leads to modern and competitive.

The statements expressed herein for the purposes of this model are what this author considers as the main considerations, requirements and recommendations to be taken to carry out the measurement of a factor not well developed within the consulting and analysis be able to analyze the impact of technological experience in human resources company, but are not restrictive settings for that reason anyone who wishes to apply the model may include in the same additions as he sees fit, but always respecting the proposed schemes in order pre-clusive (ie the order of the steps proposed), and the importance of every model is alienated with the strategies, objectives, mission and vision of the company to get this way maximization is achieved the results obtained in the human resource part of implementing telecommuting.

### **6. CONCLUSIONS:**

- ✓ We performed a review of the main tools that should have any organization or human resource specialist decides to adapt experiences of telework in your organization, and in turn has been made to provide a set of alternatives through the demonstration of what tools, techniques and methods are most suitable for the measurement of value engineering in the human resources involved in a telecommuting project.
- ✓ Intellectual Capital as one of its primary objectives, translate the strategy and mission of the company in a system of indicators to assess their realization and their real value as if it were tangible resources. Within this we found that human resource is the main factor of the components of intellectual capital and in turn is seen as the most difficult measurement, so methodologies are being developed as the proposal to make and demonstrate their importance and importance in organizations.
- ✓ The internal customer satisfaction is achieved by companies with the understanding of its importance within the organization to obtain the results and recognizing it as the most influential in the value creation in meeting the mission and objectives designed.

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- ✓ Experience has shown that learning to telecommute not just know the application of new technologies, also have the ability to set and meet goals, interact by computer with other people, improve the quality of life and above all, a change personal and cultural society in general.
- ✓ Telecommuting is presented as a new system of work organization that generates direct benefits to companies, the same result from the maximization of results with profitability, cost reduction and efficiency, to generating value to internal customers external.
- ✓ With the implementation of the measurement model proposed here demonstrate the potential of telework and its effect on one of the processes that are part of the continuous improvement of an organization such as the value engineering in human resource, such that to base their contribution to the sustainability of the enterprise or the improvement of the objectives of the public where applicable.
- ✓ The creation of value in human resources is not consider a lost and is considered as an investment whose return will always be superior in terms of sustainability for the external customer or the quality of public service that is provided and thus translated into a satisfying, commitment, sense of belonging and loyalty internal (employee) to provide each of maximizing the expected results and planned for the company or public entity.

### **7. RECOMMENDATIONS:**

- ✓ All measurement model for the human resource value engineering, as proposed here, should consider the prior existence of a project or pilot telecommuting on which work planning time and resources.
- ✓ The nature of this model allows for better measurement result should observe and evaluate not only the evolution of the teleworker in the experience of telework in time, but can also be compared to the same end results with those of equivalent workers in the office.
- ✓ The measurement technique selected by the employer or by team guide the determination of the results, it is free, but I think you should follow a scheme like the proposed means and involves pre-methodological order and stages from: the determination of certain principles and assumptions, the selection of resource to be evaluated and then to select the sample, choose the methods of measuring intellectual capital, selecting work measurement tools and finally evaluate the results as a whole.
- ✓ The methods of measuring intellectual capital is a reference to start a measurement strategy, however for the purposes of our research depends on the object to be measured (for our purposes, the impact of human resources for teleworking experience) to measurable selection techniques based on surveys or statistical methods created specifically for the purpose of quantifying the value engineering, recognizing the tangible and intangible factors of human resources.
- ✓ For every execution of a model must have a crew or equipment guide (in the case of public sector human resources department) to apply the techniques and measuring methods are presented under the circumstances and stating the requirements the project. The measuring equipment shall meet the measurable and the sample application from the planning stage in order to provide better results report, since the evolution of the worker depends on the conditions that you selected as suitable for an experience telecommuting, and the skill set for the instrument.
- ✓ It must always take into consideration the factors of time study for work such as: selecting the type of work, the handling of documents and information channels, the systematization of processes, the study of rhythm, yields, intervals of work and delivery of information, and the study of the supplements.



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- ✓ It will be important, it is anticipated that the selected sample (workers involved) know the grounds on which will be assessed at an earlier stage of induction training or experience, so that you can get a good response to the tools and measuring techniques.
- ✓ You may not obtain a comprehensive result in the application of this model, if it does not apply or comply with the principles proposed involving an alignment of objectives, mission and strategies of the model with the company or public body, but especially if this is not a real commitment of the participants in the experience and especially top management, who hope to get a result that transcends and perpetuate consolidated over time.

In this summary I hope I have shared with you the main findings of the research that allowed me to propose a model for applicative extremely useful for obtaining the measurement result of the value engineering of human resource immersed in the experience of Telework in an organization, company or entity.

I can't conclude without acknowledging the people who are still developing and executing research on telework, remembering that it is still in process of consolidation in our continent and it is important to continue providing the necessary inputs for better decision-government whether to promote their implementation in public and private sectors.

I congratulate once again all the efforts being made in the neighboring countries of Costa Rica, Colombia, Brazil and Argentina in order to achieve the consolidation of teleworking adapted to our Latin American reality leaving an important legacy for the use of various beneficiaries of teleworking (entrepreneurs, people with different skills, business sectors, public service managers, people in the process of inclusion, etc.) and for new generations to find the necessary tools to implement new work experiences appropriate to the currency of knowledge and information technologies.

Lima, 2012-2016.

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