

## Parameterized consideration of Information Freedom and Ease in IT and Data Processing

*Syed Sajjad Naeem Shah<sup>1</sup>, Ahsan Raza Sattar<sup>2</sup>, M. Yahya Saeed<sup>3</sup>, Bilal Hussain<sup>1</sup>, and Atif Mahmood<sup>1</sup>*

<sup>1</sup>Computer Science,  
University of Agriculture Faisalabad,  
Punjab, Pakistan

<sup>2</sup>Computer Science,  
Assistant Professor, University of Agriculture Faisalabad,  
Punjab, Pakistan

<sup>3</sup>Computer Science,  
Lecturers, GC University Faisalabad,  
Punjab, Pakistan

---

Copyright © 2015 ISSR Journals. This is an open access article distributed under the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**ABSTRACT:** Data processing technology is ever necessary to support the business of the company, and it is housed, kept, and replaced by new technology when available to satisfy the growing thirst for information processing power led by the company. Due to the complex nature to maintaining large computer systems and software's good IT policies are required to run the organization. The expectations are evolving now that IT should be a major contributor to the trade mission of the company. IT managers often do not understand the technology hidden powers and aspect for the freedom and accurate working, which can be provided with the existing resources. It not only it serves the business, but it turns into the proper application of technology as well. In fact, it is a small, but nevertheless significant paradigm to make the transition from a culture of technology to a working convenience. IT Service Management has been used in the IT industry for many years in one form or another, usually by organizations have realized the need for an approach to the provision of balancing services within IT[7][9]. It is based on the principle of defining, achieving and maintaining the required service levels for IT user, business and company at large. Unfortunately, it can be said that very few IT organizations have adopted IT as a key strategy for Freedom of Information for meeting the targets set in the larger company. Even the adoption of the IT model many organizations have left behind a service orientation, while in their struggle for control of new technologies and therefore that are immature in proper information freedom[3][17].

**KEYWORDS:** Data Processing, ICT, IT, SW, Resource Inventory.

### 1 INTRODUCTION

Management services are activities that have always been practiced in the data center. Usually related to the implementation and effective management of mission-critical applications, service management is a strategy to provide (and in many cases, the warranty) levels of IT service to business users who depend on IT applications as a tool to support its mission within the company [9][21]. In beginning of technology have been the IT systems and their interconnection networks successfully deployed and have migrated or developed mission critical applications to run on that infrastructure. The computing model is main thing, and the administrators needed it to support mission critical IT environment. The key to effective IT management remains Management Service. It addressed the problem of providing timely, consistent & high

quality service to business users in the company. However model of the computing faces challenges to effective service management exceeded for years in an IT organization based firm [11][24].

As technologists often do, have a tendency to be very quickly tactic in search of a solution to a perceived problem. Service Management is one of key strategies. It stems from the objective of the IT organization to provide a high level of service to business users within the company. Service management is the strategy definition, achieved, maintained and the required at all levels of IT services to the population of business users with the company [8][20]. The Service Management & Strategy is so effective because it focuses on the needs of the business user as the main driver for the development of infrastructure. Instead of arbitrarily implementing computers and networks of various capacities and capabilities, effective service management strategy takes into account the needs of the user population for any given application area in the design and implementation of this part of the infrastructure [7][19].

Using customer needs IT to specify the characteristics and behavior of the infrastructure, the costs are considered early in the cycle [28]. Excess capacity can be avoided, and appropriate up management activities are considered, can be planned for, and personnel. As such, capital costs and personnel can be better understood and controlled. Fewer failures occur by setting proper expectations. Working with the business user during the requirements and planning, their needs are known and analysts can help you understand if your expectations can be met within the fiscal [5][13].

- Establishing IT resources inventory.
- Resources allocation and Utilization Record
- Establishing the levels of applications of interest
- Determine costs of providing the desired service levels.
- Assessment of Required Service Level
- Limitations of the uses
- Compensation for the required services
- Measurement of Required services
- Renegotiation of Service
- Monitoring of service levels

### 1.1 DEFINING INFORMATION STRATEGIC MANAGEMENT

Some of the characteristics of strategic management are

- Combination of strategy formulation and strategy implementation;
- Highest level of business activity;
- Carried out by an organization's executive team;
- Provides overall management of the company.
- specifying an organization's objectives;
- Policy development of a plan to achieve those goals;
- The allocation of resources to implement the policies.

### 1.2 IMPLEMENTATION OF THE IT STRATEGY

Following implies the implementation of the IT strategy

- Allocation of sufficient resources (personal, time, support financial technology)
- The establishment of a chain of command or some alternative structure,
- assigning responsibility for specific tasks or specific groups of people processes,
- involves managing the process (monitoring results compared to benchmarks and best practices, evaluating the effectiveness and efficiency of the process, controlling for differences in the process making adjustments as needed) ,
- The implementation of specific programs, i.e., the acquisition of the necessary resources, process development, training, process analysis, documentation and integration with legacy processes.

a) The components of strategic IT management. The definition of the business of the organization and the development of a strategic mission,

- setting strategic objectives and performance targets,
- The formulation of a strategy for achieving the objectives,
- implementing a strategic plan implementation chosen,
- Evaluate the strategic performance and make necessary adjustments.

### 1.3 MEANING OF THE STRATEGIC IT MISSION

- The management view of what the organization intends to do and become in the long term is the strategic management of the organization.
- Develop strategy reveals how specific results will be achieved - a detailed plan of action is needed to achieve short-term and long-term results.
- Implementation and execution of the strategy means the strategy put in place and ensure that individuals and organizational subunits to go all out in the execution of their tasks in the next step. The challenge of leadership is as stimulate enthusiasm, pride and commitment of managers and employees in order to carry out the chosen strategy and achieve the expected results [9][16].
- Enumerating the most important IT strategic objectives
- Market position and competition standing the organization wants to achieve;
- Annual performance objectives;
- The key operating and financial results to be achieved through the activities chosen;
- Any other milestones by which strategic success will be measured.

### 1.4 IT STRATEGY FORMULATION

- Not necessarily go through the sequence in strict lock-step fashion.
- The tasks involved in the strategic management are never isolated from everything falls scope of a manager.
- Managing the demands of the strategy put in the time manager is irregular,
- Development and implementation of the strategy should be considered as something that is ongoing and evolving.

## 2 MATERIALS AND METHODS

On the Basis of study following parameters selected:

- Security
- Solution Design
- Knowledge Transfer
- Integrity Eligibility Requirements
- Extensibility
- Quality Requirements
- Solution Admission Requirement
- Performance
- Over Evaluation of Deployed Solution
- Quality of Services Provided
- General Requirement Assessment

The Description of All of above is given below.

### 2.1 SECURITY

- The Solution shall comply with all applicable State security policies.
- The Solution shall implement security controls in accordance with all Federal and State security policy and regulations.

- Information security shall be built into the Solution from its inception rather than “bolted on” after the Solution has been implemented.
- The Solution shall support security at the object level (e.g. Table, View, and Index).
- The Solution shall support security at the row and column level.
- The Solution shall support auditing at the object level (i.e. Table, Column).
- The Solution shall provide protection to maintain the integrity of data during concurrent access.

## **2.2 SOLUTION DESIGN**

- The vendor must submit a narrative describing the design and development approach and methodology with their proposal.
- All change request cost estimates must include the use of a cost analysis tool.
- The vendor shall incorporate the design and development approach into a comprehensive Design and Development Plan.
- The vendor shall provide the State access to both source/object codes for software components and documentation.
- The vendor shall acquire authorization from the State for the use of production Solution resources (legacy data or source files), or data derived from the State's production resources.
- The vendor shall describe the overall testing approach and methodology used for the Solution Project.
- The vendor shall provide staff to the State to answer questions and address any problems that may arise during testing conducted by the State.

## **2.3 KNOWLEDGE TRANSFER**

- The vendor shall provide both end-user classroom training/Train-the-trainer sessions and on-line training as agreed with the State for all end-users.
- The vendor shall develop and perform train-the-trainer training sessions, as appropriate.
- The vendor shall identify the number of staff necessary for maintenance and operations of the Solution as well as the skill sets necessary.
- The vendor shall develop and provide training for the technical support staff including State staff and contractors.
- The vendor shall provide all training within the State of Vermont at locations convenient to the attendees of the training, unless the vendor receives advance approval from the State for specific training at other locations.
- The vendor shall schedule staff training in a manner that is least disruptive to the normal business operations.
- The vendor shall provide instructions to the State on vendor tools and procedures used to support the training.

## **2.4 INTEGRITY ELIGIBILITY REQUIREMENT**

- The Solution shall have the capability of exchanging information with the legacy ACCESS system.
- The Solution shall have the capability to provide data and access to notifications to the Vermont HBE System.
- The Solution shall have the capability to request and store data from Federal Hub for a number of purposes including, but not limited to updated Citizenship and Income verification.
- The Solution shall have the capability to request and store results of IRS service information.
- The Solution shall have the capability to request and store results of Equifax – TALX wage verification.
- The Solution shall have the capability to request and store results of Beneficiary & Earnings Data Exchange (BENDEX) Social Security Administration (SSA) income verification.
- The Solution shall have the capability to request and store results of verification service citizenship / lawful presence provided by CMS.

## **2.5 EXTENSIBILITY**

- The Solution shall be designed for ease of maintenance and readily allow future functional enhancements. This shall be accomplished through use of modern design principles for Service Oriented Architecture, applying principles of modularity, interface abstraction, and loose coupling.

- The Solution shall be adequately flexible to keep up with ever changing technology and regulatory changes. This shall be accomplished by separating workflow and business rules into their own separate tiers.
- The Solution shall be scalable and adaptable to meet future growth and expansion/contraction needs such that the Solution can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data.
- The screens shall be highly re-configurable, providing ability to reposition and rename field labels / data fields, remove or “turn-off” unused fields, maintain data, and allow addition of custom-defined fields.
- State shall be able to modify the labels and arrangement of information in the data model Solution documentation templates and can create custom data fields.
- The Solution shall provide the ability to create and/or modify edits and business rules which determine the correctness/integrity of data.
- The Solution shall provide the ability for on-line access by any site connected to the organization Wide Area Network (WAN).

## 2.6 QUALITY REQUIREMENT

- The vendor shall describe the production support and transition approach and methodology for the Solution as agreed between the vendor and the State.
- The vendor shall provide the State with regularly updated list of personnel, contact information, and their area of expertise of who shall be performing Solution production support. Frequency of update shall be agreed between the vendor and the State.
- The vendor shall identify the root cause of corrupted data, identify Solution for fix and repair corrupted data that is associated with a problem in the Solution.
- The vendor shall develop an automated process for purging production Solution files as determined by the State data governance.
- The vendor shall provide documentation that describes the procedures for Solution administrators to add, update or remove user IDs and passwords.
- The vendor shall provide the responsible entity with help desk scripts and decision trees for tier 1 and 2 help desk support.
- The vendor shall provide instructions and training for responsible agency support staff that may need to access and support the Solution remotely.

## 2.7 SOLUTION ADMISSION REQUIREMENT

- The Solution shall maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.
- The Solution shall provide an auto archive/purge of the log files to prevent uncontrolled growth of the log and historical records storage using administrator-set parameters.
- The Solution shall provide version control capabilities to ensure the integrity of all software releases.
- The Solution shall provide logging and reporting for accessing errors and exceptions.
- The Solution shall monitor and provide reports on any unauthorized access.
- All Solution communications shall be protected by at least 128-bit encryption.
- The Solution shall be supported by public key/private key encryption Secure Socket Layer (SSL) certificates.

## 2.8 PERFORMANCE

- The Solution shall return a Static Standard report within 5 seconds or less.
- The Solution shall return a parameter-based report within 20 seconds or less.
- The Solution will give the highest priority to Search and Look up operations performance, conforming to the minimum acceptable performance standard of 5 seconds response time, for 95% of queries.
- The Solution shall be available at the agreed level of availability between State and vendor based on the pricing. The vendor will provide pricing for the various levels of availability specified in RFP.
- The Solution shall be architected with no single point of failure, supporting a high-availability enterprise.
- Hours of operations shall be 24 hours per day, 7 days per week, and 365 days a year.

- The Solution shall have the ability to support session replication and transparent failover using high-availability architectural options.

## 2.9 OVER EVALUATION OF DEPLOYED SOLUTION

- The Solution shall provide admin tools and maintenance routines to change access rights quickly.
- The Solution shall use firewalls and Demilitarized Zones (DMZs) for external access and remote access.
- The Solution shall allow Solution administrators to create and manage user accounts.
- The Solution shall allow Solution administrators to assign status and permissions to user accounts.
- The Solution shall allow Solution administrators to create and manage user roles.
- The Solution shall allow Solution administrators to create user groups to manage workflow.
- The Solution shall allow Solution administrators to assign users to particular local offices.

## 2.10 QUALITY OF SERVICES PROVIDED

- The Solution shall allow Solution administrators to assign users to particular user groups / units.
- The Solution shall allow Solution administrators to assign users to particular supervisors.
- The vendor shall establish an automated maintenance routine that shall at a minimum backup the user IDs and password data identify expired IDs and related data
- The vendor shall use offsite storage. Data backup should be stored offsite in the event of a physical disaster
- The Solution shall provide Service Level Agreement (SLA) monitoring and reporting capabilities. Service Level definitions will be drafted into a single document provided as an attachment.
- The Solution shall securely support State's existing remote control (i.e. support personnel ability to take over the user device for troubleshooting and support) capabilities deployed for any type of client workstation.
- The Solution shall provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices.

## 2.11 GENERAL REQUIREMENT ASSESSMENT

- The Solution shall have the ability to integrate the data within the MDM with management and security tools.
- The Solution shall manage the policies and rules associated with's privacy access rights.
- The Solution shall configure and manage differing visibility rules, providing different views for different roles.
- The Solution shall integrate with the State Active Directory to provide authorization, e.g., role-based security.
- The Solution shall include Solution-wide Meta models to help identify what users, roles, applications and systems are responsible for which client and provider data.
- The Solution shall provide workflow services for remediation of quality issues in client and provider data.
- The Solution shall include business rules services to interrogate which rules are used by MDM by frequency and preference and to provide suggested enhancements to such business rules [11][23].

## 3 RESULTS AND DISCUSSION

Study is executed by the consideration over the concepts as well as typologies. Investigation has been based over to the professional and people, observation, peer interviews etc are used in the collection and developing of documents. Analysis and displaying of the accorded data has been done so that achieving the underlying patterns and parameters of the current study [6][18].

Following are the graphs of parameters selected on the basis of previous discussion.

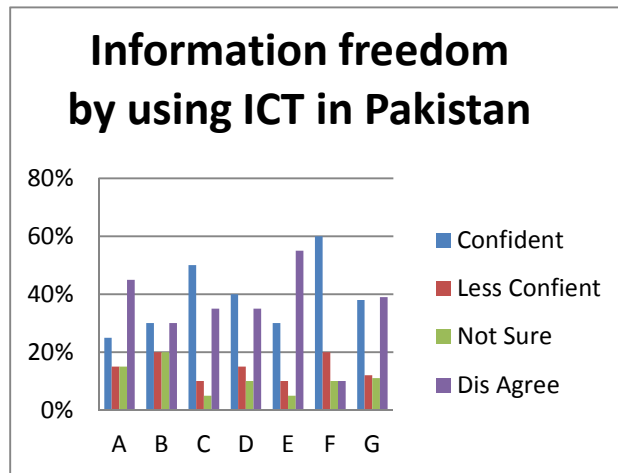


Fig. 1. Information Freedom – Security

The Bar-Graph displaying data related Information Freedom – Security has been depicted by the Bars-in-Graph. From This Confident level is clear.

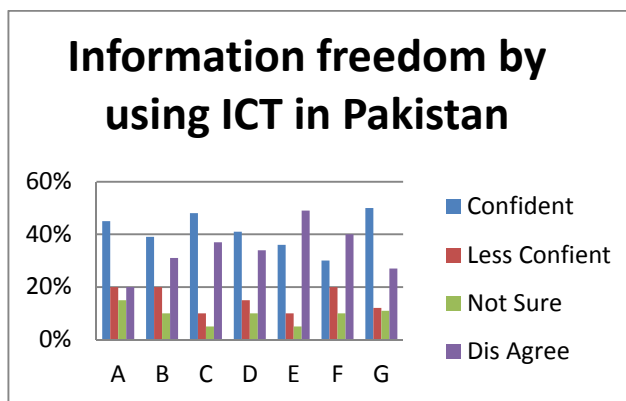


Fig. 2. Information Freedom -Need

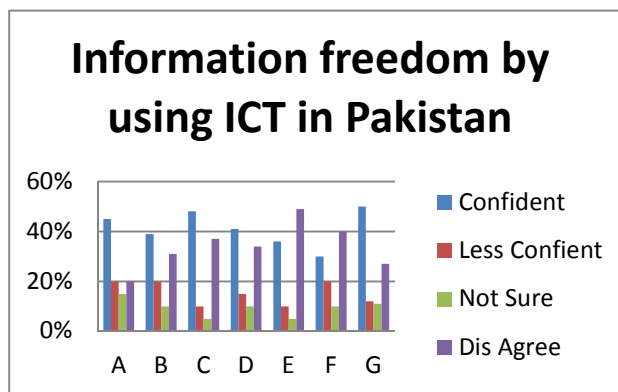


Fig. 3. Information Freedom-Solution Design

The Bar-Graph displaying data related Information Freedom-Solution Design has been depicted by the Bars-in-Graph. From This Confident level is clear.

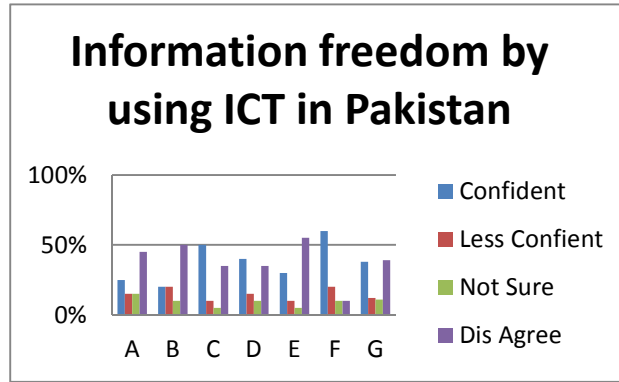


Fig. 4. Information Freedom- Knowledge Transfer

The Bar-Graph displaying data related Information Freedom- Knowledge Transfer has been depicted by the Bars-in-Graph. From This Confident level is clear.

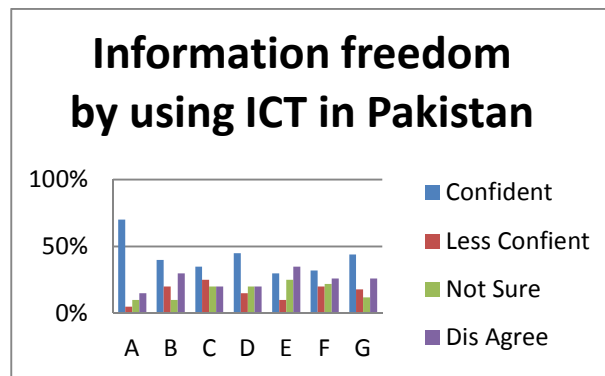


Fig. 5. Information Freedom- Integrity Eligibility Requirements

The Bar-Graph displaying data related Information Freedom- Integrity Eligibility Requirements has been depicted by the Bars-in-Graph. From This Confident level is clear.

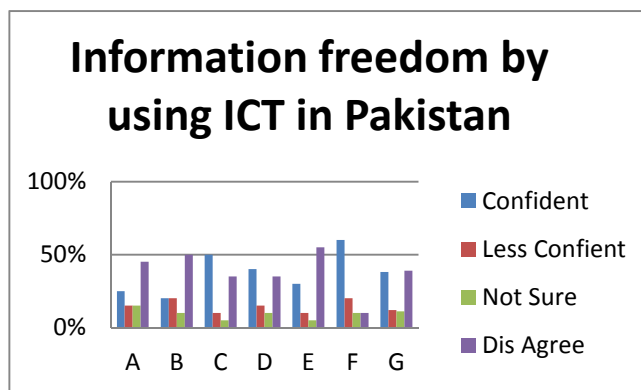


Fig. 6. Information Freedom – Extendibility

The Bar-Graph displaying data related Information Freedom – Extendibility has been depicted by the Bars-in-Graph. From This Confident level is clear.



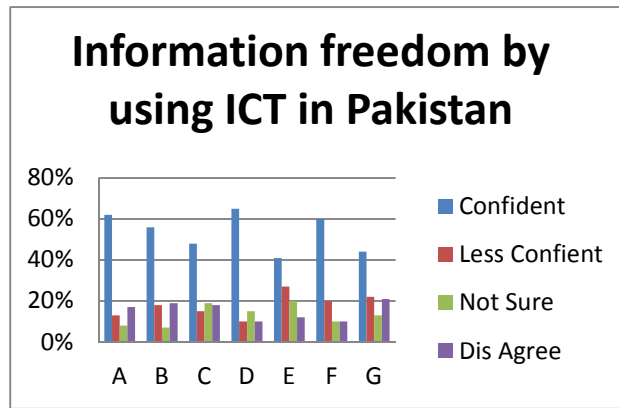


Fig. 7. Information Freedom - Quality Requirements

The Bar-Graph displaying data related Information Freedom - Quality Requirements has been depicted by the Bars-in-Graph. From This Confident level is clear.

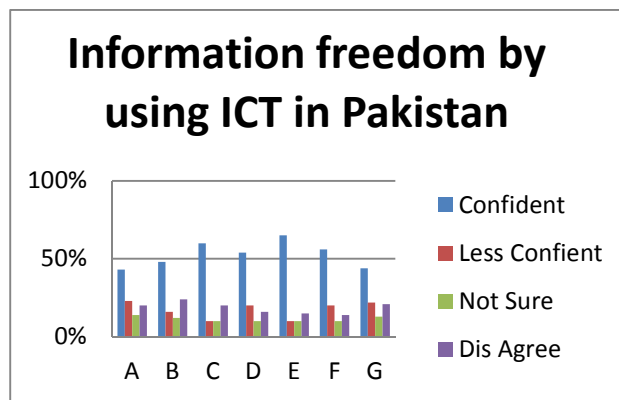


Fig. 8. Information Freedom - Solution Admission Requirement

The Bar-Graph displaying data related Information Freedom - Solution Admission Requirement has been depicted by the Bars-in-Graph. From This Confident level is clear.

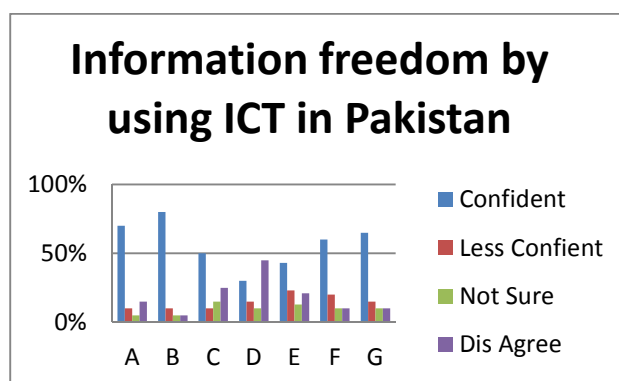


Fig. 9. Information Freedom - Performance

The Bar-Graph displaying data related Information Freedom –Performance has been depicted by the Bars-in-Graph. From This Confident level is clear.

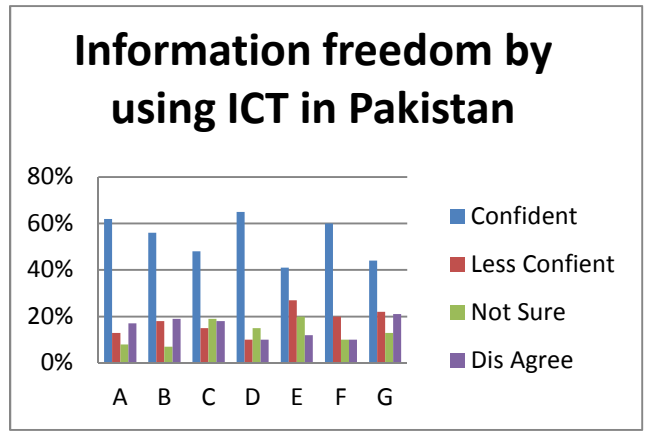


Fig. 10. Information Freedom -Over Evaluation of Deployed Solution

The Bar-Graph displaying data related Information Freedom -Over Evaluation of Deployed Solution has been depicted by the Bars-in-Graph. From This Confident level is clear.

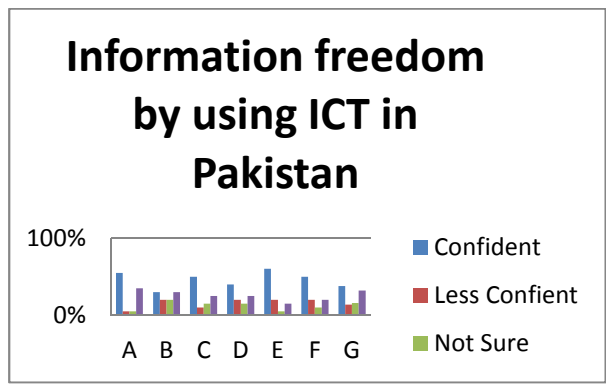


Fig. 11. Information Freedom- Quality of Services Provided

The Bar-Graph displaying data related Information Freedom- Quality of Services provided has been depicted by the Bars-in-Graph. From This Confident level is clear.

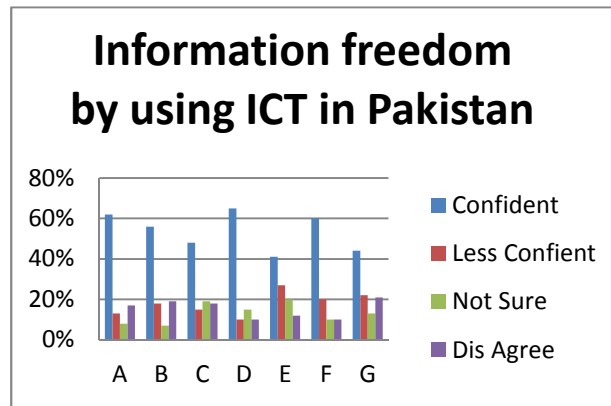


Fig. 12. Information Freedom - General Requirement Assessment

The Bar-Graph displaying data related Information Freedom - General Requirement Assessment has been depicted by the Bars-in-Graph. From This Confident level is clear.

#### 4 SUMMARY

Benefits of correct and free information are a key factor that enables organizations to achieve their desired goals. The aim of this study is to present the important role of correct and accurate information in achieving the organization's plans. It is considered that a new essential for organizations to gain a competitive advantage over its rivals in the same line of work strategy [1][7]. Organizations resulting from the application of correct and free information organizations can ensure customer and performance improvement services. Therefore, both organizations and their customers will certainly enjoy the benefits of Freedom of information [8][19].

This study will allow the firms to apply to connecting organizations with their suppliers, customers and users. This brings e-commerce, increasing revenues and operational efficiency of organizations. So, you can create changes in the work and operational efficiency and work value of the organization. This study investigates whether firms and users are satisfied by the acceptance of correct and free information and information as a tool used to evaluate working performance [2][21]. This study was designed to study computer science, management information systems, work strategy and firm performance. The aim of this study is to show the general managers of the role of correct and free information and management information systems in work, as part of a new viable strategy for organizations to achieve success and performance [1][21].

The primary learning objectives in this study, which will help firms and users in obtaining a better understanding of the role of information systems with more freedom and correct and free information management to work strategy and results of the company, are to study

- 1) The role of Information for management and systems
- 2) The relationship study to the success of the work strategy.
- 3) The role of information as a tool measuring the performance of the company.
- 4) The relationship between good Information and work performance
- 5) The impact of information, correct and free information & management to the working results.

Information technologies are a vital component of successful working of organizations. Information technologies, including Internet-based IS, are playing a vital role in work and expansion. Correct and free information can help works of all sizes to improve the efficiency and effectiveness of their work processes, managerial decision making, and workgroup collaboration, thus strengthening its competitive position in a rapidly changing market. This is true if used to support product development teams, processes transactions ecommerce customer service, or any other commercial activity [12][22].

By making correct and free information investments to improve their operations and promote innovation, the company could also erect barriers to entry that discourage or delay other companies from entering a market. Usually this occurs by increasing the amount of the investment or the complexity required to compete in a technology industry or market segment. Investment in correct and free information allows a company to build strategic correct and free information capabilities that

let you take advantage of strategic opportunities as they arise. In many cases, this occurs when a company invests in advanced computer systems to improve the efficiency of their work processes [11][16]. Then, armed with this strategic technology platform, the company can leverage correct and free information investment by developing new products and services that would not be possible without strong correct and free information capability.

This study examines the effects of correct and free information and management information systems acceptance of an evaluation of the performance of the company. It examine whether the acceptance of correct and free information and management information systems have an effect on the performance evaluation of the company [2][15]. In fact, correct and free information, yes, it can be used as a tool to increase the performance of the company; and management information systems also have the same role to help decision makers to improve the performance of the company as well.

Analysis of the relationship between correct and free information and management information systems - the researcher found that there is a positive relationship between correct and free information and management information systems. It says that the greatest amount of information needed the most advanced correct and free information to be provided. Analysis of the relationship between correct and free information and work strategy - I found that there is a positive relationship between correct and free information and work strategy. This means that the more volume of information whenever performance in the most efficient and effective company is [4][14]. It found that there is a positive relationship between correct and free information, management information systems and work performance. I can say that the most advanced correct and free information always, the performance of the company more efficient and effective is; and together, more and more information, the more successful is the performance of the firm [5][17].

Finally, the positive results of this study can meet the effect of correct and free information acceptance and management of information systems used to evaluate the performance of the organization. Actually to increase efficiency and operational effectiveness, good information with more free can increase customer satisfaction and revenue, reduce costs, and to achieve the objective and work strategy, and ultimately, increase work results. Therefore, top managers are satisfied and do accept the concept of this study. The technology has proven to have positive effects on the process of instruction in basic and advanced skills. Information and Technology is also changing the instructional process itself. To be effective, technology cannot exist in a vacuum, but must be a part of the educational environment too [22][23].

## REFERENCES

- [1] Aina, D. and J.Kola 2013.. "Effective Teaching and Learning in Science Education through Information and Communication Technology [ICT]." *Journal of Research & Method in Education*: 43-47.
- [2] Allam, S., S. V. Flowerday and E. Flowerday 2014. Smartphone information security awareness: a victim of operational pressures. *Computers & Security*
- [3] Alruily, M., A. Ayesh and H. Zedan 2013. Crime profiling for the Arabic language using computational linguistic techniques. *Information Processing & Management*
- [4] Andrés, R. Antonio, and S. A. Asongu 2013 "Fightin
- [5] g software piracy: Which governance tools matter in Africa?." *Journal of business ethics* 118.3 (2013): 667-682.
- [6] Baumann, A. and D. Häberli 2013. "A Security Analysis of the Swiss Electronic Voting System."
- [7] Baumann, F. and T. Friehe 2013. Private protection against crime when property value is private information. *International Review of Law and Economics*, 35: 73-79.
- [8] Carpenter and Penny 2013. "The How Women in Remote and Rural First Nation Communities are Using Information and Communications Technologies (ICT)." *Special issue*. *The Journal of Rural and Community Development* 8(2): 79-97.
- [9] Deb, J. and S. Sagarmay 2013. "Distance Education through Mobile Technology Can Bring Progress in Developing Countries." *Journal of Communication and Computer*: 490-495.
- [10] Davies, Tim and S. Fumega 2014. "Mixed incentives: Adopting ICT innovations for transparency, accountability, and anti-corruption." *U4 Issue* 2014.
- [11] Mekawy, M., B. AlSabbagh and S. Kowalski 2014. The Impact of Business-IT Alignment on Information Security Process. *HCI in Business: First International Conference, HCIB 2014, Held as Part of HCI International 2014, Proceedings, Crete, Greece*: 25-36
- [12] Feng, N., H. J. Wang and M. Li 2014. A security risk analysis model for information systems: Causal relationships of risk factors and vulnerability propagation analysis. *Information Sciences*: 57-73.
- [13] Gottschalk, P., C. Filstad, R. Glomseth and H. Solli-Sæther 2011. Information management for investigation and prevention of white-collar crime. *International Journal of Information Management*, 31(3): 226-233.
- [14] Grossman, Guy, M. Humphreys and G. Sacramone-Lutz. "'I wld like u WMP to extend electricity 2 our village" On Information Technology and Interest Articulation."

- [15] Ismail, F. O., S. S. Tenuche and A. A. Wahab 2014. "Place of the Freedom of Information Act in Promoting Agricultural Extension under the Agricultural Transformation Agenda in Nigeria." *Journal of Agricultural Extension* 17(2): 67-76.
- [16] Kim, S., H. J. Kim and H. Lee 2009. "An institutional analysis of an e-government system for anti-corruption: The case of OPEN." *Government Information Quarterly* 26(1): 42-50.
- [17] Kajzer, M., J. D'Arcy, C. R. Crowell, A. Striegel and D. V. Bruggen 2014. An exploratory investigation of message-person congruence in information security awareness campaigns. *Computers & Security*: 64-76.
- [18] Kihzoa and Patrick 2014. "Promoting proper education for sustainability: An exploratory study of ICT enhanced Problem Based Learning in a developing country Amit Roy University of Eastern Finland, Finland." *Critical success factors for ICT usage in learning* 10(1): 70-90.
- [19] Manfre, M., and S. Cristina 2013. "Reducing the gender gap in agricultural extension and advisory services: How to find the best fit for men and women farmers." *Meas Brief* 2 United States Agency for International Development, Washington, DC.
- [20] Mahmood, A. and I. S. Ahmed 2013. "Public procurement system and e-Government implementation in Bangladesh: The role of public administration." *Journal of Public Administration and Policy Research* 5(5): 117-123.
- [21] Parsons, K., A. McCormac, M. Butavicius, M. Pattinson and C. Jerram 2014. Determining employee awareness using the Human Aspects of Information Security Questionnaire (HAIS-Q). *Computers & Security*
- [22] Perepechina, I. 2013. Legislative framework and value of the forensic DNA examination of health-related information for crime investigation. *Forensic Science International: Genetics Supplement Series*, 4(1):360-366.
- [23] Posey, C., T. L. Roberts, P. B. Lowry and R. T. Hightower 2014. Bridging the divide: A qualitative comparison of information security thought patterns between information security professionals and ordinary organizational insiders. *Information & Management*, 51(5): 551-567.
- [24] Pillai, A., S. Deepa and S. Sathyalakshmi 2009. "Prevention of Relay Attack Using NFC." *Prevention* 2(3).
- [25] Rodríguez and J. F. Devia 2013. "Collective and participatory strategic planning of the department of Tolima in Colombia." *Proceedings of the 7th International Conference on Theory and Practice of Electronic Governance*. ACM, 2013.
- [26] Rocha, F., W., E. Antonsen and M. Ekstedt 2014. Information security knowledge sharing in organizations: Investigating the effect of behavioral information security governance and national culture. *Computers & Security*: 90-110.
- [27] Rosy, Q., S. Ioset, D. Dessimoz and O. Ribaux 2013. Integrating forensic information in a crime intelligence database. *Forensic science international*, 230(1): 137-146.
- [28] Atif Mahmood, Mr. Ahmad Mateen Buttar, Irfan Ali, and M. Arslan Saeed Khan, "Performance Analysis of Proactive OLSR and Reactive DSR, AODV protocols for MANET," *International Journal of Innovation and Scientific Research*, vol. 10, no. 2, pp. 498–506, October 2014.