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A Study Hard Case for Soft Skill

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ABSTRACT: "Having hard skills gets you hired; lacking soft skills gets you fired." Hard skills are necessary to get a job but often insufficient to keep it or advance. That's because nearly all employees have the hard skills necessary to do the job for which they're hired. True, some may perform these skills a little better or a little worse than others, but one estimate suggests that only 15 percent of workers who lose their jobs are fired because they can't do their job. That's why career success is often determined by soft skills. According to some research studies, the number one reason why managers and executives find themselves with a stalled or underperforming career is a lack of interpersonal skills. This might seem surprising, given the amount of training and attention given to technical skills and business knowledge, but the fact remains that there is more to career success than just knowing the facts. Hard Skills and Soft Skills, both are two sides of a same coin without which a complete organization is impossible to make. Skills training of both types are typically very difficult to have as training is very narrow and focused. Courses may be built around a specific skill such as active listening, problem solving or team building. But learning both skills that resolved to a complete man can't be done with a one-shot training course. To develop skills, organizations focus on the broader parameters of organizational and behavioral change. While skills training is an important part of the process, organizations need to help employees understand what type of skills and competencies are required on the job and how those competencies develop over time and how those competencies work together to create a self learning and self building organization. This paper mostly focuses on why Hard skills and Soft skills cannot co-exist without one another and why both are inter-dependent.

I. INTRODUCTION

In development practice today, when you ask 'How do you improve governance systems in developing countries in order to improve the lives of the poor?' the so-called hard skills dominate the discourse[1]. But what are these so-called hard skills? At their most mind-numbing these are number-crunching skills derived from a variety of quantitative social science disciplines. Beyond that these are skills in technical analysis and solution-finding. So, if you want to curb corruption in Country XYZ you find the technical experts on building world class procurement and other systems send in accountants and the like and so on[3]. You design systems, set up an Anti-Corruption Commission. You deploy your notion of 'best practice' in the relevant technical field. All this is well and good but will that blow a corrupt public political culture away and with it the broader tolerance of corruption by the population at large? The difficulties in getting results and making them stick being experienced around the world are becoming too big a pile of inconvenient facts to be ignored[2]. Yet the fields of learning and the skills that can help to make governance reform initiatives work are often dismissed as 'soft'. Those who study values, beliefs, norms, attitudes and public opinion, and what to do about them in specific situations – all significant influences on the outcomes of reform initiatives – are told they have nothing meaningful to contribute to the great efforts needed to improve governance systems around the world[5]. And all those inconvenient facts they are going to keep piling up until so-called hard sciences find the humility to expand their paradigms[8].

II. HARD SKILLS & SOFT SKILLS-THE UNDEFINED DEFINITIONS

"Hard skills" are technical or administrative procedures related to an organization's core business. Examples include machine operation, computer protocols, safety standards, financial procedures and sales administration[12]. Hard skills are the occupational requirements of a job and many other activities. It can be further magnified and seen as a whole set of technical skills inherited by a human being during a long span of time.

"Soft skills" are needed for everyday life as much as they're needed for work like in communicating, listening, engaging in dialogue, giving feedback, cooperating as a team member, solving problems, contributing in meetings and



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resolving conflict[7]. Soft skills is a sociological term relating to a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people[9].

III. ARCHITECTURAL DESIGN

"Studying participatory processes implies unraveling the underlying principles and values of participation and developing a deep cognitive and emotional understanding of participation and process" is the most important criteria to learn the skills. Following are the architectural guidelines through which hard skills and soft skills can be improved over time.

- Facilitation concepts and practice/methods, group dynamics, facilitation techniques
- Interactive training/teaching concepts and methods/techniques
- Action research as a research method
- Interdisciplinarity a conceptual and team perspective
- Systems thinking with a view to changing perspectives
- Management of change (processes, leadership, roles, and functions

IV. HOW BOTH HARD SKILLS AND SOFT SKILLS ARE INTERDEPENDENT

A typical business degree program or executive training program will focus on what are considered hard skills. Examples might include strategic business planning, financial analysis, budgeting, or product development. These are all important things to know, but an increasing number of companies are also interested in the so-called soft skills. These soft skills are best defined as how a manager interacts with people. An evaluation of soft skills might include answer the following questions:

What behaviors does the manager consistently demonstrate?

How the manager is viewed by others at levels at, above, and below his/her organizational level? How does the manager communicate with others?

How does the manager handle team-building situations?

Does the manager get along with other people?

Let's see one example to see that why both Hard Skills and Soft Skills are interdependent on each other. Let us take the example of Software Engineering Institute (SEI). Architects need to be familiar with a wide range of technologies, methodologies, understand the software lifecycle, have design experience, and some say an architect must write code, and so on and so forth. Indeed, the hard skills are important, very important. However it doesn't stop there. There are also several soft skills that you need to master if you are to be a good architect. The minimal skill-set for an architect should include capabilities from the following areas:

1. Leadership. Influencing others to accomplish tasks and following your guidance- Leadership

Solutions architects are the "technical managers" of projects. This means they are responsible that all the designs and code are aligned to the functional requirements and that the quality attributes are kept. However, architects are seldom the direct managers of a development team - and even if the architect is the manager, you still need to inspire your workers. Well, that just doesn't work. Establishing yourself as a technical authority will be enough but it isn't the need to cultivate your leadership skills as well. What is leadership anyway? Leadership is about exerting influence on people and increasing the chance that people will follow your vision and decisions. To do that it is important to gain the respect of the teams you work with, communicate your vision and designs clearly and are trustworthy. So how do you do that? Unfortunately, there is no definitive answer to that:

• Provide direction. To lead it is important to know where you are going and make the decisions that will get you there.



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• Explain your decisions. Deus ex machina doesn't count. You work with intelligent people, they may not have your experience or the same depth of knowledge but they want to know why they are doing something[5].

• Listen to what others have to say. They may actually say something valuable you know

• Don't postpone decisions and don't avoid conflict. This will not make them go away. Do try to manage your conflict though[3].

• Motivate people. This can be done by things like mentoring and teaching, allowing people design freedom. (Letting others make the decisions in their relative fields/areas even if the solution they propose is not perfect[1].

• Set an example. E.g., you can sit (pair with) other developers in the team to design/code important things together[2].

2. System thinking. Understand decisions and constrains in the wide scope pertaining to whole of the solution at hand. This includes the ability to abstract problems. - If you managed to make yourself a leader, it only increases your responsibility to actually know where to go. Two soft skills that can help you with that are System Thinking and Strategic thinking.

Microsoft Encarta defines system as "any collection of component elements that work together to perform a task." When we get a problem, that is, a software solution that needs to be built, we tend to think about breaking it down into manageable "parts" (the subsystems/components/services/objects) that makes that solution. This, however, will only take us so far if we don't also employ "Systems Thinking".

One important trait for understanding systems behavior and component interaction is the ability to create abstractions and models; that is, simplifications of the reality which contain enough detail to be useful. It is important to remember that mental models limit the perspective we have which is why we need to have several models and why it is beneficial to have more than one person working on a problem

As it happens this is also aligned with my definition of software architecture: Software architecture is the collection of the fundamental decisions about a software product/solution designed to meet the project's quality attribute requirements. The architecture includes the main components, their main attributes, and their collaboration (i.e. interactions and behavior) to meet the quality attributes.

• Strategic thinking. Understanding decisions and constrains and their alignments to the overall business of the company.

• Organizational politics. Understand the environment you operate in and how it influences you. - If strategic thinking helps you understand where the organization is going, Understanding Organizational politics helps you understand how e-organization is working.

Decision making, especially technical decision making, seems like such a logical process. You just look at the alternatives; analyze the merits vs. the problem at hand, and may the best option win. This works out well if you are the king (or work alone which makes you the king by default) -- otherwise there are other people and they won't necessarily agree with you.

• Communications. Making sure you get your point across.

V. UNDERSTANDING BOTH SKILLS THROUGH AN EXAMPLE

Hard skills and Soft skills both are necessary to deliver one complete activity with success. A live example of organizing an International Conference in Himalayan Group of Institutions is best to understand this. There are two important tasks needed for being this event successful. First is the core technical task which implies the theme of the event and other is the management of all the resources. Now for the first Hard Skills are required and for the second Soft Skills are required. Let's take two most important persons who are involved in the organizing of this event. We had core technical knowledge which is very useful for the theme of the Conference as he can look after topics related and other activities. But this event does not constitute the core technical part but an important part of organizing the guests and audience for which The audiences are always the core criteria for an event to be successful. So they should



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understand both the conference and also their look after is equally important. So we have seen that the Hard Skills and Soft Skills are needed for the event. Merely studying 'participation', rather than living through and facilitating such processes, is of limited practical usefulness. Studying participation means interaction of the researchers with farmers, colleagues, and other stakeholders in the situation or process they study, engaging in the dynamics, and allowing variables to change.

VI. CONCLUSION

Getting personal

Many business professionals have difficulty with soft skills because they are so personal in nature, but it is exactly these soft skills that are keys to success as a manager and leader. Even more difficult is accepting the reality of poor soft skills and making an effort to improve. It is not enough anymore to know how to analyze a profit and loss statement. A good manager or leader will take that profit and loss statement and use it to coach employees, facilitate team productivity, and lead toward performance improvement. This cannot be done simply by reading the numbers and telling people that numbers need to change. It is done by interacting with people in a way that encourages them, motivates them, and reinforces their value to the team.

Improving interpersonal skills

The good news is that everyone can learn new interpersonal skills and improve upon their old ones. Most managers will say that they already have good interpersonal skills, so it comes as a shock when they receive open, honest feedback that says they need to make improvements.

Only through such feedback, though, can areas for improvement be identified and specific goals set for practicing new behaviors.

For example, if you are perceived as a poor listener then you can practice new behaviors to change that perception. You might set a goal to focus more on listening to another person in one-on-one situations, or to limit your contributions in a group discussion so that others can contribute more.

The bottom line is that when it comes to being a good manager or leader, you must master the hard skills of your specific job as well as the soft skills of interpersonal relations. Interpersonal skills must be a focus of your leadership development. Some people are naturally better at personal interactions, but anyone can learn to do better. The key is to recognize the importance

of interpersonal relations, honestly evaluate your skill level, and consciously improve those behaviors that need work.

REFERENCES

[1]. AACSB International – the Association to Advance Collegiate Schools and business. Biz Schools at Risk. (2002, May-June, Retrieved August 4, 2004 from the World Wide Web at http://www.aacsb.edu/publications/... /may-june02/p48-55 Biz Schools at Risk.pdf.

[2]. Allen, M. (2000). "Teaching non-traditional students". American Psychological Society Observer, 13 (7), 16-23.

[3]. Alsop, R. (2004). Top Schools Struggle To Teach Soft Skills. Retrieved August 14, 2004 from the World Wide Web at http://www.careerjournal.com/specialreports/bschool03/

[4]. Argenti, Paul A. & Forman, J. (1998). "Should business schools teach Aristotle?" Strategy & Business. Retrieved August 14, 2004 from the World Wide Web at http://www.strategy-business.com/briefs/98312

[5]. Aslanian, C. (1996). "Students over twenty-Four Becoming the Norm at U.S. Colleges." College Board News May-June, 1.

[6]. Bean, J. C. (1996). The professor's guide to integrating writing, critical thinking, and active learning in the classroom. San Francisco: Jossey-Bass Publishers.

[7]. Business School Graduates "Well Prepared For Work" http://www.pathfinder-one.com

[8]. Journal of College Teaching & Learning - April 2005 Volume 2, Number 4

[9].Allen Consulting Group 1999, Training to compete. The training needs of Australian industry. A report to the Australian Industry

Group, Australian Industry Group, North Sydney.

[10]. Australian Chamber of Commerce and Industry & Business Council of Australia 2002, Employability skills for the future,

Department of Education, Science and Training, Canberra.

[11]. Australian Council for Educational Research 2001, Graduate skills assessment. Summary report, Department of Education,

Training and Youth Affairs, Higher Education Division, Canberra.

[12]. Australian Education Council, Mayer Committee 1992, Key competencies. Report of the Committee to Advise the Australian

Education Council and Ministers of Vocational Education, Employment and Training on Employment-related Key Competencies for Post-compulsory Education and Training, Australian Education Council and Ministers of Vocational Education, Employment, and Training, Canberra.

[13]. Australian Education Council Review Committee (chair: B Finn) 1991, Young people's participation in post-compulsory education and training. Report of the Australian Education Council Review Committee, Australian Government Publishing

Service, Canberra.