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## Notes on the Use of Effective Methods for Application of Economics of Moderation

### 1. Introduction

Keynesian Economics of Regulation featuring government control of fiscal policy was ruling in the US since Roosevelt era's New Deal until the 1980's.<sup>2</sup> In 1979, a series of recessions triggered a US government change to Monetarism of Milton Friedman's Chicago School of Economics.<sup>3</sup> It was the switch from government control of fiscal policy to controlling money supply that exists until today and is called by some 'Economics of Excess'. Monetarism has spread worldwide and kept changing into different flavors and names but the main theme of superiority of monetary policy remains to this day.

The new approach presented advantages of increased business (i.e. economic activity and speed of reaction) to correct economic upsets. It also produced side effects of a seemingly unstoppable growth of government debt as well as the beginning of massive replacement of managing engineers by administrators of larger engineering projects, in construction and in technology organizations.

### 2. Administration contributes to economics of excess

After the takeover, administrators kept bringing in helping groups and creating new departments dedicated to planning, cost, scheduling and control, as well as procurement of equipment, materials and services. The costs invariably started to grow with the administration preoccupied with perfecting numbers, dates and form often prevailing over the imperfect content that seemed to be sometimes 'lost in translation'.

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<sup>2</sup> *What is Keynesian Economics? Next New Deal*, "The Blog of the Roosevelt Institute"; <http://www.nextnewdeal.net/what-keynesian-economics> (01.07.2009).

<sup>3</sup> M. Friedman, *The Concise Encyclopedia of Economics*, "Library of Economics and Liberty"; <http://www.econlib.org/library/Enc/bios/Friedman.html> (2nd edition December 2007).

Managing engineers, with help from the administrative personnel, were used to operating in a freer, analog, real and imperfect but less expensive world with its ambiguity, mistakes and errors. That lost world could have been called 'Economics of Moderation'.

Ironically, in that world, project costs, execution time and content including project quality have been better meeting the established targets, with incomparably lesser delays, errors and eventual compromises so often seen on projects today.

Administration with the extensive use of the developing digital tools has been focused on numbers, dates and form driven perfect world. Yet, since the 1980's project and construction costs, as well as cost overruns, have been a noticeably increasing contribution to inflation of GDP figures (that was helping to show higher economy results) and to the acceleration of the government debt. The over-planned, over-budgeted, over-scheduled, over-controlled, and generally over-administered world had begun and it still silently exists today. That world has been called by many of those who were managing projects prior to the 1980's, as well as many others later, as "Economics of Excess".<sup>4</sup>

### 3. Project and organization improvement

Organizations faced with the growth of administration and administrative tasks kept experiencing escalation of costs and overruns, especially on larger technological projects. Note that the above escalation may have a compounding effect (i.e. when the project exceeds its budget and has an overrun, next similar project will be over-budgeted and over-scheduled only to face the same fate at the end).<sup>5</sup>

In their search for solutions to contain costs and costs overruns, a multiplicity of elaborate analytical top-down organizational improvement methods have been tried over the years, as a part of the overall organizational quality improvement.

The author has been involved, participated and witnessed the implementation of those top-down methods while working in several major corporations in Canada. Most of the top-down methods would rather quickly fade away to be replaced by the new ones. Those that survived and are still successfully in use today, mainly in manufacturing, are elaborate, expensive, and require heavy organizational engagement.

The author has been researching and experimenting, then has tried, implemented and modified new bottom-up improvement approach and

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<sup>4</sup> J. Jekielek, *Notes on Methods to Countermeasure the Escalation of Project Costs and Overruns*, 7<sup>th</sup> International Scientific Conference, Cracow University of Economics, Cracow 2015.

<sup>5</sup> J. Epp, P. Barnes, R. Jeffrey, *Report on the Pickering "A" Review Panel*, Report to the Ontario Minister of Energy, Toronto 2003.

methods on a variety of projects, in construction and in education. That approach and methods have been successful on their own or in supporting any organizational improvement. They are directly applicable to the concept of Economics of Moderation.

Bottom-up improvement approach and methods are firmly centered on the nature and philosophy of man. They are also firmly supported by a multiplicity of scientific work published by top world researchers and practitioners. The author was most influenced by works of Dale Carnegie<sup>6</sup>, Erich Fromm<sup>7</sup>, Judith Hermann<sup>8</sup>, Frederic Herzberg<sup>9</sup>, Douglas McGregor<sup>10</sup>, Nigel Nicholson<sup>11</sup>, Herbert Simon<sup>12</sup>, and Robert Townsend<sup>13</sup>.

#### 4. Bottom-up improvement

The author's approach is based not on action but on identifying and abandoning activities that are deemed useless or counterproductive. The new bottom-up improvement approach (Figure 1) resulted in the development of several methods. Most of those methods were designed to work on their own and all of them to independently support organizational improvement efforts and have lasting impact on people, projects and organizations.

Below is an early outline of the bottom-up improvement concept based on a set of mental exercises to empower individuals for their own as well as project's and organizational good.

"Imagine that you (*are free, you*) don't have any imposed duties you must fulfill. You are in full control and take ownership of what you do at any time based on your choice, helped by a list of priorities that you establish and keep updating in your mind. In time you will skillfully keep reshuffling priorities and remember them. Having control (*hopefully with concurrence*

<sup>6</sup> D. Carnegie, *How to Win Friends and Influence People*, Simon and Schuster, New York 1936; D. Carnegie, *How to Stop Worrying and Start Living*, Simon and Schuster, New York 1948.

<sup>7</sup> E. Fromm, *Escape from Freedom*, Rinehart, New York 1941; E. Fromm, *Psychoanalysis and Religion*, Yale University Press, Yale 1950; E. Fromm, *Thoughts on Bureaucracy*, "Management Science" 1979, vol. 16, no. 12.

<sup>8</sup> J. L. Herman, *Trauma and recovery: The aftermath of violence from domestic abuse to political terror*, Basic Books, New York 1992.

<sup>9</sup> F. Herzberg, *One More Time: How do You Motivate Employees?*, "Harvard Business Review", January-February 1968.

<sup>10</sup> D. McGregor, *The Human Side of the Enterprise*, McGraw Hill, New York 1960.

<sup>11</sup> N. Nicholson, *How Hardwired is Human Behavior?*, "Harvard Business Review", July-August 1998.

<sup>12</sup> H. Simon, *Models of Man*, John Wiley & Sons, San Francisco 1957; H. Simon, Newell A., *Human Problem Solving*, Prentice Hall, Englewood Cliffs, New Jersey 1972; H. Simon, *The Sciences of the Artificial*, MIT Press, Cambridge 1996.

<sup>13</sup> R. Townsend, *Up the Organization, How to Stop the Corporation from Stifling People and Strangling Profits*, Fawcett Publications, Greenwich 1971.

Figure 1. Principle of the Bottom-up Improvement

### **Bottom-up Improvement is...**

a set of methods based on the nature and philosophy of man, offered in a non-intrusive way to all individuals in the organization for non-declarative, voluntary use that encourages people to pursue the following points.

- 1. Abandoning activities that are counterproductive and useless followed by**
- 2. Harmonization of what remains**
- and**
- 3. Adding missing parts if found in the above processes**

Source: Notes on Methods to Countermeasure the Escalation of Project Costs and Overruns, J. Jekielek, 7<sup>th</sup> International Scientific Conference, Cracow University of Economics, 2015.

*of superiors as needed*) you (*prudently*) identify and start abandoning those activities you define as counterproductive and useless. As your workspace gets emptied you could discover gaps and missing pieces, and explore all context not seen before. Then you harmonize and integrate all that remains to end up with a full, functional integration to complete the task.

Gradually you will progress much faster with less. Your skills in discovering full context, abandoning the dead weight and filling the gaps allow you to run faster or take more load (*or just to take a breath to think what else you can do*).

You keep momentum of moving forward (*while*) avoiding obstacles without stopping; you negotiate changes that you decided must happen. If you cannot avoid an obstacle you (*gently*) bulldoze through. Even better, you can jump over or use obstacles as stepping-stones to leap further. If you are unsuccessful and crash, you get up and proceed a different way".<sup>14</sup>

Challenges of implementation might be formidable since the approach is challenging the basis of the organizational improvement that has been adding, not abandoning actions. Organizations pride themselves on a claim that they do only what is necessary.

The following are descriptions of nine bottom-up improvement methods developed and used to date. Notice that most of them are just mental exercises meant to be private, non-intrusive, and non-imposing, voluntary means for work as well as self-improvement designed to deliver powerful results.<sup>15</sup>

<sup>14</sup> J. Jekielek, *Structured Streamlining for Enterprise Improvement*, 6<sup>th</sup> International Scientific Conference, Cracow University of Economics, Cracow 2013.

<sup>15</sup> J. Jekielek, *Notes on Methods to Countermeasure the Escalation of Project Costs and Overruns*, 7<sup>th</sup> International Scientific Conference, Cracow University of Economics, Cracow 2015.

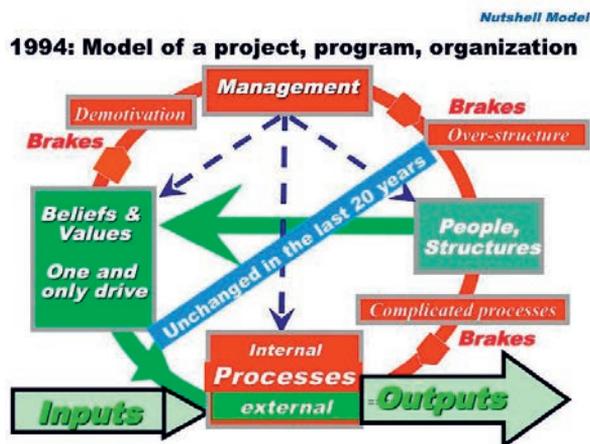
## Nutshell Models (1)

Nutshell Models are simplified presentations of complex, vague or uncertain matters designed to maximize comprehension. They fulfill this role by finding and using the essence of the matter in a simple manner that is easy for the average person to understand. Historically, Nutshell Models were used since 1993 originally known as “universal models”.<sup>16</sup>

Nutshell Models are designed to facilitate understanding and increase learning ability and internal motivation by discovering ‘essential facts’, introducing ‘curiosity factors’ (that compel participants to believe that they can succeed), and presenting ‘magic solutions’ allowing for a surprising ‘instant’ success in gaining some knowledge and/or performance usually from the first trial.

On Figure 2, *essential facts* combine with *curiosity factors* to show that any project, program or organization can be shown in the simplest manner as a turning wheel with four action blocks and three brakes that are slowing the wheel. This simple presentation can be used as a visual aid to any related narrative.

Figure 2. Nutshell Model of a project, program, organization



Source: The Use of Nutshell Models to Enhance Teaching Outcomes, Jekielek, J., 35<sup>th</sup> ASEE/IEEE Frontiers of Education Conference, 2005.

For example, that model has been used with great success to present general and detailed comparisons between public, civic and private organizations. The *magic solution* in this model is showing that any project or organization is driven by the beliefs and values of the people.

The author has used Nutshell Models extensively since 2003, beginning in education: courses, workshops and seminars covering a variety of

<sup>16</sup> J. Jekielek, *A Universal Model for Organizational Improvement, Conference and Exhibit*, International Society of Automation ISA, Philadelphia 1994.

engineering, business, human resources and sport topics, and later on projects, in engineering and construction.

The following are outlines of nine improvement methods developed and used to date.

### Definition of the Value System (2) and Rules of Engagement (3)

Definition of the Value System and Rules of Engagement are most important since they determine your non-negotiable but updatable practical set of values and rules (i.e. they will arm you with the ability to create a suit of standard responses when you are in the full swing of improvement). Since you represent cultural change, it is needed because you will be often questioned and be perceived as odd, strange, or a threat. Your only defense will be the results of your new behavior, mostly identifying and abandoning counterproductive and useless activities and harmonizing whatever is left.

Definition of the Value System and Rules of Engagement form a very solid, self-determined, non-declarative, non-negotiable but updatable base that set up individual's behavior for instant, rapid action that, in time, will allow for influencing the surroundings. People with strong value systems are known for their psychological resilience. Also, "Highly resilient people are able to make use of any opportunity for purposeful action in concert with others, while ordinary people are more easily paralyzed or isolated by them".<sup>17</sup>

### Definition of the Value System (2)

- Determine your practical core value system – the more solidified it is the more resilient you become and it will be easier to proceed.
- Determine your level of tolerance for form vs. content.
- For abandoning actions: determine a framework of actions that for you are counterproductive and differentiate them from the useless ones.
- For 'harmonizing what is left, work on recognizing context and capability to integrate components in a multidisciplinary way.
- Keep determining, updating and internalizing all the above continuously.

### Rules of Engagement (example – used by the author) (3)

- Embrace the imperfect world and corresponding verbalization (e.g. eliminate all phony rhetoric such as "zero tolerance", etc.)
- Establish and negotiate with stakeholders at what level of completion to close the project, dedicating a few people to the customer on the

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<sup>17</sup> J. L. Herman, *Trauma and recovery: The aftermath of violence from domestic abuse to political terror*, Basic Books, New York 1992.

pay per hour basis. That would allow the customer not only to get most satisfactory completion but also to add last minute modifications and additions. The biggest challenge there may be convincing your own project administration that such move may be highly appreciated by the customer.

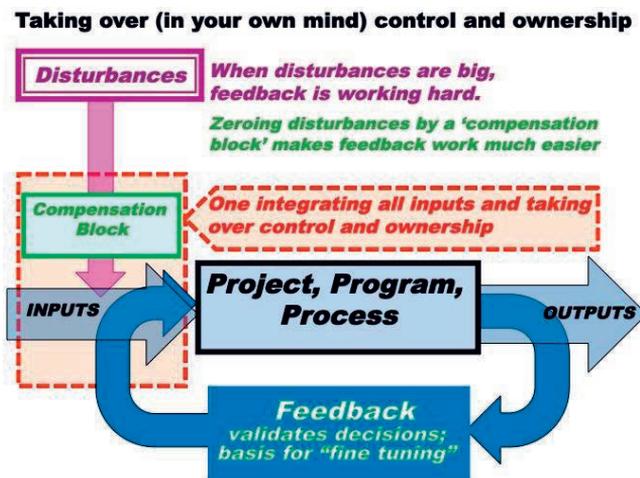
- Embrace negotiability of “everything” except for your values and rules.
- Define your three areas of truthfulness (very important to maintain credibility).
  - Truths (positive)
  - Grey area between truths and lies; can be positive or harmful, with two items:
    - ‘White lies’ or ‘sins of omission’
    - ‘Little untruths’
  - Lies (harmful)

Keep determining, updating and internalizing all the above continuously.

#### Takeover of Control and Ownership (4)

Control and Ownership scheme has its source in the automation theory feedback and feed-forward control schemes. Takeover of Control and Ownership is presented on Fig. 3. Note that for the general use feedback control is reactive while feed-forward is proactive action to achieve the result.

Figure 3. Takeover of Control and Ownership explained, an example of the Nutshell Model



Source: Notes on Methods to Countermeasure the Escalation of Project Costs and Overruns, J. Jekielek, 7th International Scientific Conference, Cracow University of Economics, 2015.

In Fig. 3 an object of action is a project, program or process that converts inputs into the resulting useful outputs. The object is subjected to disturbances that can be external and internal.

External Disturbances can come from many sources and one 'taking over control and ownership' can do the best to compensate for them. The internal disturbances – participant's own preconceptions and prejudices, are toughest of all.

One 'taking over control and ownership' (in one's own mind) funds himself more empowerment and freedom; with practice, one will recognize and work on abandoning what is counterproductive and useless toward better results for oneself and one's surroundings.

#### Reprioritization (5)

Reprioritization, the key to speed and momentum of action can be described by following activities:

- Make a list of priorities (best in your head only) and be ready to update it continuously.
- Reprioritize instantly if needed.
- Negotiate/confirm acceptance of the affected contents and schedules.
- Create rough schedules, as easy going as possible with a generous reserve at the end; unpredictable events can and will show up.
- Develop and exercise the art of negotiation, as well as your tolerance for living with disagreement when the acceptance cannot be achieved.

#### Play in Action (6)

Play in Action can be described as the state of mind of an individual. Playing roles is associated with more attention and increased curiosity that with use becomes a habit. Play in Action is an effective internal motivation booster and the most powerful and contagious influencer of other people in the organization. There is nothing better at work than a happy group of highly productive people who can find humor in the most boring part of work, enjoying even most mundane tasks.<sup>18</sup>

Play in Action adds lightness and natural teambuilding that shows up as an image of joy of the naturally corroborative and cohesive work that looks like play. Individuals and groups using this method will stand out from the outside crowd.

#### Critical Reflection (7)

- Bring in all your experiences, add experience of others, anecdotal evidence, stories and any related information.

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<sup>18</sup> J. L. Herman, *Trauma and recovery: The aftermath of violence from domestic abuse to political terror*, Basic Books, New York 1992.

- Challenge your own and others' assumptions
  - Confront the existing body of knowledge, skills and practices.
  - Reflect and arrive at the solution integrating all the above processes.
- Critical Reflection will broaden one's view of the subject; it brings enlightenment, discovering context, and stimulates innovative thoughts.

### Minimum Compliance (8)

Minimum Compliance is described below.<sup>19</sup>

- Get familiar with all applicable laws, regulations, procedures and practices.
- Confront the existing, established body of knowledge, especially practices.
- Shortcut all steps that are not absolutely necessary, supplement if necessary.
- Arrive at the solution assuring minimum compliance.

A method of Minimum Compliance reinforces the principle of the optimal approach; anything above simply means additional cost and/or time

### Infrastructural Self-organizing (9)

Infrastructural Self-organizing is an attempt to humanize an organization and has been tested as a great effective relief for civic organizations. It makes organizations pass power, where applicable, to people who happily organize themselves for common activities.

Typically, there are two spontaneous steps in a self-organizing process as follows:

1. An initiator proposes an attractive "infrastructure" for self-organizing.
2. Participants accept it as a starting port to develop and use.

It has been tested a few times and has been ongoing for several years in a civic organization's recreational club for sport activities.

Note that "providing infrastructure" can be anyone's announcement met with someone's response, tried and improved by getting more response (i.e. basically an effortless happening).

## 5. Conclusion

This paper presents the author's view that the implementation of the Economics of Moderation as a countermeasure to the existing Economics of Excess can be directly supported by a bottom-up approach and methods rooted in the nature and philosophy of man. The concept and methods of bottom-up improvement are based, not on costly additional activities as

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<sup>19</sup> J. Jekielek, *Enhancing Project and Enterprise Agility to Respond to Change*, 6<sup>th</sup> International Scientific Conference, Cracow University of Economics, Cracow.

offered by all top-down improvement methodologies, but on abandoning activities that have been identified as counterproductive or useless.

Summarized in this paper, nine bottom-up improvement methods have been successfully used on many industrial and educational projects. They are designed to first originate spontaneously in people who recognize in them their own personal benefit. Those people's behavior will influence the surroundings; the end result is a path of improvement for people, projects and organizations with essentially no significant cost to the projects or organization.

The current state of project execution and organizational functioning has for some 35 years belonged to the Economics of Excess, featuring over-administration (i.e. over-planning, over-management and over-control of larger projects).

Without organizational interest or knowledge, the suggested path to "Economics of Moderation" on a project or in the organization is still simple; years of experience prove that it is not only viable but also successful beyond expectation, improving not only performance but also the very basics of life and benefitting projects and organizations.

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#### Abstract

One of the side effects of the American 1979 recession-triggered replacement of Keynesian Economics by Monetarism of the Milton Friedman Chicago School of Economics was the replacement of managing engineers by administrators in technology organizations, construction and projects.

In that role reversal, costs invariably started to go up with growing administration pre-occupied with numbers and dates, and with form often prevailing over content that seemed to be sometimes "lost in translation". The era sometimes called "Economics of Excess" had begun.

Organizations faced with escalating costs have kept searching for improvement solutions making use of elaborate analytical top-down methods, with very mixed results. A simple bottom up approach and methods developed and applied by the author on industrial and educational projects are summarized. They have been very successful on their own as well as in supporting organizational improvement efforts. They are directly applicable to the concept of Economics of Moderation.

**Keywords:** Project improvement, bottom-down improvement approach, bottom-down methods, Economics of Moderation

## Rozważania na temat wykorzystania skutecznych metod stosowania ekonomii umiaru

### Streszczenie

Jednym ze skutków ubocznych zmiany kursu rządu z ekonomii Keynesa na monetaryzm Milтона Friedmana, spowodowanej recesją w USA w 1979 r. było przejmowanie przez administratorów kierowania projektami, budowami i organizacjami technologicznymi. Wcześniej rolę tę pełnili kierujący projektami inżynierowie.

Opisana zmiana spowodowała wzrost kosztów związanych ze stale powiększającą się administracją, dla której cyfry, daty i formalności były łatwiejsze do zrozumienia i kontroli niż niedoskonała z natury zawartość merytoryczna, która zaczęła schodzić na dalszy plan. Rozpoczęła się era „ekonomii nadmiaru”.

Organizacje podjęły działania prewencyjne, aby zatrzymać stale rosnące koszty i wydłużający się czas wykonania projektów czy trwania budowy, a także koszty własnego funkcjonowania. Wprowadzano odgórnie coraz to nowsze analityczne metody usprawniania, które przynosiły różne efekty.

W artykule podsumowano rezultaty lat badań i wdrożeń oddolnego podejścia i metod usprawniania wprowadzanych w wielu projektach technologicznych i edukacyjnych. Metody te zostały z sukcesem zastosowane w pojedynczych przedsięwzięciach, sprawdziły się też jako pomoc we wprowadzaniu odgórnych organizacyjnych metod usprawniania. Można ich użyć bezpośrednio przy wdrażaniu systemu ekonomii umiaru.

**Słowa kluczowe:** usprawnienia w projektach, podejście usprawniania oddolnego, metody usprawniania oddolnego, ekonomia umiaru