

PM WORLD TODAY – EDITORIAL – JULY 2011

State of the World of Project Management - Practice and Experience

First the Model – Categories, Dimensions, Industries & Types

Part 3 in a Series

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Introduction

The January 2011 editorial was entitled “*State of the World of Project Management – A Look Back, then Forward*”. That paper was subtitled “Part 1”; in it I considered the status of project management research, bodies of knowledge and publishing. ^[1] In March 2011, I continued the series in Part 2, “*State of the World of Project Management – PM Education and Training*”. ^[2] This month, I continue an assessment of where things stand in the project management world with an initial discussion of project management practice and experience.

This series of article is based on nine major elements of the PM World in a model that was presented in a September 2006 *PM World Today* editorial. ^[3] That nine-point model includes: (1) PM Research – the foundation for any profession or industry; (2) PM Body of Knowledge – the global collection of theories, information, methodologies, etc.; (3) PM Publishing – books, magazines, journals, other; (4) PM Education and Training – institutional and corporate; (5) PM Practice and Experience – the world of actual programs and projects; (6) PM Products & Services – the supplier marketplace; (7) PM Profession – professional organizations, standards, qualifications, activities; (8) PM Employment and Careers; and (9) PM Communities.

As explained previously, I have used this multi-faceted framework as a basis for considering the status, growth and maturity of project management in various industries and geographic regions. It also provides a useful model for identifying new developments, trends, gaps and maturity in various segments and sectors.

The subject this month, actual project management practice and experience, is by far the largest and most important element in this 9-point model. It is intended to capture the use of PM on various types and sizes of programs and projects, in various organizations and industries, in both commercial and public sectors, and in various parts of the world. There are also several dimensions and perspectives that must be considered, so this is no easy task. Nevertheless, some assessment of the maturity of

program and project management in various sectors, industries and locations is needed in order to really understand the big picture – where are we today and what more can be accomplished?

This month I return to assessing the elements of the World of Project Management. In considering how to approach this big topic, however, it became clear that a model is first needed to provide a categorical framework for assessing different types of programs and projects implemented in different conditions, environments and locations. For this I have drawn on the following two major publications:

- “*State of the Art of Project Management*”, a paper by **Russell Archibald**, presented at the PMI-Sao Paulo 4th International Seminar on Project Management in 2004, an early version of which can be found in the PMForum library ^[4] ; and
- “*Notes on Project/Program Typologies*”, by **Alan Stretton**, February 2011 edition of **PM World Today** ^[5]

Categories & Typologies of Programs and Projects

Russ Archibald’s paper drew on some research conducted by himself and **Prof. Vladimir Voropajev** in Russia in 2003. In his 2004 paper, Russ covered a number of topics including characteristics of project management, programs vs. projects, project and program life cycles, status and maturity of PM in various sectors and for various types of projects, people management issues and the near future. Most importantly, Russ presented a model for categorizing projects and sub-projects according to industry and project types. Figure 1 shows his top level categories.

<u>Project Categories</u>	
1.	Aerospace/Defense Projects
2.	Business & Organizational Change Projects
3.	Communication System Projects
4.	Event Projects
5.	Facilities Projects
6.	Information Systems (Software) Projects
7.	International Development Projects
8.	Media & Entertainment Projects
9.	Product and Service Development Projects
10.	Research and Development Projects
11.	Other Categories

Figure 1 – Categories used by Archibald and Voropajev in 2003 survey ^[4]

Each of the categories in Figure 1 was presented with sub-categories and examples of projects. According to Russ at the time, *“Projects – with different size, shape, degree of risk and complexity, and widely varying products or results – are the common denominator for project management. Having a practical scheme for categorizing projects would be useful for all organizations for a number of reasons, but a widely accepted project categorization system does not exist at present.”* [4]

Russ goes on to state in his 2004 paper, *“It may be necessary or useful to further classify projects within categories or sub-categories using the following (or other) characteristics: project size; project complexity; external or internal customer; degree of customer involvement in the project; levels of risk in projects; major and minor projects within a category; ‘mega’ projects or programs; ‘stand alone’ versus ‘creating supporting infrastructure’ projects; and ‘standard’ versus ‘transitional’ projects.”* [4]

Alan Stretton, in his February 2011 paper, referencing earlier research and papers by Lynn Crawford, Bob Prieto, Aaron Shenhar and others, discussed seven “dimensions’ of project/program management, as outlined in Figure 2.

<u>Dimensions of Projects & Programs</u>	
1.	Initial Project/Program Uncertainty
2.	Project/Program Complexity/Scope
3.	Project/Program Pace
4.	Project Novelty
5.	Strategic Goals & Customers
6.	Project/Program Customer or Provider Perspective
7.	Perceived Primary Program Purpose

Figure 2 – Project/Program Dimensions; Stretton, 2011 [5]

According to Alan, *“I came to this discussion of project/program typologies via a concern about the great diversity of program management applications and the dearth of materials that aggregate and/or summarise program processes and/or practices related to individual application areas... I have broadened the context of this discussion to include projects as well as programs because distinguishing between the two is not relevant to these discussions.”* [5]

Within each of these dimensions, Alan discusses issues, state of the literature and the need for more research and knowledge sharing. He does not attempt to describe best practices but rather raises the important need to address program and project typologies in order to better characterize program/project management applications and solutions. This paper is also directly related to several other papers by Dr Stretton in ***PM World Today***, including *“Matching the Right Project Managers with the Right*

Project Types” [6] and “*Programs and component Projects versus Projects and component sub-projects,*” [7] , among others.

Before Proceeding with Status of the PM World

Returning to the subject of this paper, the broad world of project management applications, practices and experiences must reflect the various types of programs and projects, which in turn vary dramatically depending on the industry, size, uncertainty, environmental conditions, people and organizations involved, location and many other factors. It is therefore necessary to use a model in order to first characterize programs and projects in their various dimensions and then to assess the status or maturity of the planning and management of those endeavors. This is not as easy as it may appear.

In addition, as Russ Archibald has pointed out, various categories of programs and projects have sub-categories, projects within an industry or type but which vary by size, uncertainty, risks, location or other factors. Therefore, before trying to assess the status of PM for various industries and project types, I want to present a proposed model in this paper this month, hopefully receive some feedback, and present some assessments in future papers.



Proposed Model

As an underlying driver, I also wanted to find a model that is both simple and easy for others to relate to. This model, in fact, may be too simplified for researchers or academic leaders to use. However, for my own ability to assess the status of PM around the world, I propose to use the following framework:

- **Industries** – grouped in Categories
- **Organization Type** – Governmental, NGO, Commercial, Non-profit, etc.
- **Project/Program Type** – research, design, new product development, build, create change, internal vs external customer, etc.
- **Project/Program Size, Complexity, Risks & Uncertainty** – measured by scope, cost, resources, time frame, team composition, stakeholders and other factors
- **Location** - as related to economic, political and social environments for programs and projects

Industries

There are a number of industry classification systems used by governments, statistical services, rating agencies, financial markets and various global organizations. Several

of the better known and most widely used industry categorization systems are briefly described in the following paragraphs.

North American Industry Classification System

There are many industries in the world; how best to identify and group them is the challenge. For example, the North American Industry Classification System (NAICS), adapted by the US government in 1997 as a replacement for the older Standard Industrial Classification (SIC) system ^[8] long used in the United States, is presented in Figure 3, below:

NAICS Categories	
11	Agriculture, Forestry, Fishing & Hunting
21	Mining, Quarrying, and Oil & Gas Extraction Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental & Leasing
54	Professional, Scientific and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support, Waste Management & Remedial Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment and Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)
92	Public Administration

Figure 3 – NAICS classification Scheme, U.S. Census Bureau ^[9]

Each of the NAICS industry categories includes many sub-categories, capturing specific supporting and related industrial activities and organizations.

Industry Classification Benchmark

Dow Jones and FTSE (the British stock index company) have developed an Industry Classification Benchmark (ICB) ^[10] for grouping and organizing various industries, as shown in Figure 4.

- 0001 - Oil & Gas – Oil & Gas Producers; Oil Equipment, Services & Distribution; Alternative Energy
- 1000 - Basic Materials – Chemicals; Forestry & Paper; Industrial Metals; Mining;
- 2000 - Industrials – Construction & Materials; Aerospace & Defense; General Industrials; Electronic & Electrical Equipment; Industrial Engineering; Industrial Transportation; Support Services
- 3000 - Consumer Goods – Automobiles & Parts; Beverages; Food Producers; Household Goods & Home Construction; Leisure Goods; Personal Goods; Tobacco
- 4000 - Healthcare – Healthcare Equipment & Services; Pharmaceuticals & Biotechnology
- 5000 - Consumer Services – Food & Drug Retailers; General Retailers; Media; Travel & Leisure
- 6000 - Telecommunications – Fixed Line Telecommunications; Mobile Telecommunications
- 7000 - Utilities – Electricity; Gas, Water & Multi-utilities
- 8000 - Financials – Banks; Nonlife Insurance; Life Insurance; Real Estate Investment & Services; Real Estate Investment Trusts; Financial Services; Equity Investment Instruments; Nonequity Investment Instruments
- 9000 - Technology – Software & Computer Services; Technology Hardware & Equipment

Figure 4 – Top level ICB Classification System

According to Wikipedia, the ICB uses a system of 10 industries, partitioned into 20 super-sectors, which are further divided into 41 sectors, which then contain 114 subsectors. The principal aim of the ICB is to categorize individual companies into subsectors based primarily on a company's "source of revenue or where it constitutes the majority of revenue".^[10]

Global Industry Classification Standard (GICS)

The Global Industry Classification Standard (GICS) was developed by MSCI, an independent provider of global indices and benchmark-related products and services, and Standard & Poor's (S&P), an independent international financial data and investment services company and a leading provider of global equity indices. The GICS structure consists of 10 sectors, 24 industry groups, 68 industries and 154 sub-industries.^[11]

According to the MSCI website, the GICS structure is:

- Universal: The classification applies to companies globally.

- Accurate: The structure accurately reflects the state of industries in the equity investment universe.
- Flexible: The structure offers four levels of analysis, ranging from the most general sector to the most specialized sub-industry.
- Evolving: Annual reviews are conducted by MSCI and Standard & Poor's to ensure that the structure remains fully representative of the universe.

The GICS framework is presented Figure 5:

10	– Energy: Energy Equipment & Services; Oil, Gas & Consumable Fuels
15	– Materials: Chemicals; Construction Materials; Containers & Packaging (including glass, metal, paper and other containers); Metals & Mining; Paper & Forest Products
20	– Industrials: Aerospace & Defense; Building Products; Construction & Engineering; Electrical Equipment; Industrial Conglomerates; Machinery; Trading Companies & Distributors; Commercial Services & Suppliers; Professional Services; Air Freight & Logistics; Airlines; Marine; Road & Rail; Transportation Infrastructure
25	– Consumer Discretionary: Auto Components; Automobiles; Household Durables; Leisure Equipment & Products; Textiles, Apparel & Luxury goods; Hotels, Restaurants & Leisure; Diversified Consumer Services; Media; Distributors; Internet & Catalog Retail; Multiline Retail; Specialty Retail;
30	– Consumer Staples: Food & Staples Retailing; Beverages; Food Products; Tobacco; Household Products; Personal Products
35	– Healthcare: Healthcare Equipment & Supplies; Healthcare Providers & Services; Healthcare Technology; Biotechnology; Pharmaceuticals; Life Sciences Tools & Services
40	– Financials: Commercial Banks; Thrifts & Mortgage Finance; Diversified Financial Services; Consumer Finance; Capital Markets; Insurance; Real Estate Investment Trusts; Real Estate Management & Development
45	– Information Technology: Internet Software & Services; IT Services; Software; Communications Equipment; Computers & Peripherals; Electronic Equipment, Instruments & Components; Office Electronics; Semiconductors & Semiconductor Equipment
50	– Telecommunication Services: Diversified Telecommunication Services; Wireless Telecommunication Services
55	– Utilities: Electric Utilities; Gas Utilities; Multi-Utilities; Water Utilities; Independent Lower Producers & Energy Traders

Figure 5: GICS classification system, through level 3

The GICS methodology has apparently been widely accepted as an industry analysis framework for investment research, portfolio management and asset allocation.

World Bank's International Standard Industrial Classification (ISIC)

According to the World Bank's Statistical Manual (and website), ISIC is a standard classification of economic activities arranged so that entities can be classified according to the activity they carry out. The categories of ISIC at the most detailed level (classes) are delineated according to what is in most countries the customary combination of activities described in statistical units (kind of activity units). The groups and divisions, the successively broader levels of classification, combine the statistical units according to the character, technology, organization and financing of production. Wide use has been made of ISIC, both nationally and internationally, in classifying data according to kind of economic activity in the fields of population, production, employment, gross domestic product and other economic activities. ^[12]

ISIC's hierarchical structure consists of 17 Categories (one-letter alpha code), 60 Divisions (2-digit codes), 159 Groups (3-digit codes) and 292 Classes (4-digit codes). The top two levels are shown in Figure 6 ^[12]:

- | | |
|----|--|
| A. | Agriculture – agriculture, hunting, forestry, logging and related activities |
| B. | Fishing – fishing, fish hatcheries, fish farms and related activities |
| C. | Mining and Quarrying – mining of coal, lignite, crude oil, natural gas, uranium, thorium, metal ores, other mining and related services |
| D. | Manufacturing – food products and beverages; tobacco products; textiles; wearing apparel; leather and luggage; handbags, saddlery, harnesses and footwear; wood products, paper and paper products; rubber and plastic products; publishing and printing; refinery of coke and petroleum products; chemicals and chemical products; mineral products; basic metals and fabricated metal products; office equipment; electrical machinery and equipments; and many other products |
| E. | Electricity, gas and water supply – electricity, gas, steam and hot water supply; collection, purification and distribution of water |
| F. | Construction – all construction related activities |
| G. | Wholesale & retail trade; repair of motor vehicles; personal & household goods |
| H. | Hotels and restaurants |
| I. | Transport, storage and communications – transport by land, pipeline, water, air and supporting organizations; activities of travel agents; post and telecommunications |
| J. | Financial intermediation – financial services, insurance, pension funds and financial intermediation support activities |
| K. | Real estate, renting and business activities – real estate, equipment and machinery rental, computer and related activities, research and development, and other business activities |
| L. | Public administration and defense; compulsory social security |
| M. | Education |
| N. | Health and social work |
| O. | Other community, social and personal services – sewage and refuse disposal; sanitation; recreational, cultural and sporting activities; other services |
| P. | Private households with employed persons |
| Q. | Extraterritorial organizations and bodies |

Figure 6: World Bank's Industry Classification System

Summary of Existing Classification Systems

As can be seen from the above examples, there are several major industry classification systems used in the world, but they are far from consistent. They also serve the purpose of the organizations that created and use them. Some classifications systems are for registration, taxation and governmental tracking purposes; others serve the international investment and financial services sector, while others serve other purposes (for example, the World Bank's system). In my opinion, these classification systems do not serve well for the purpose of assessing the practice and maturity of program and project management. Nor do they help to identify where additional emphasis might be placed with respect to the potential impact of PM on increasing production, furthering economic development and standards of living, or solving global problems. We need a different industry classification system.

A Proposed Project Management Industry Classification System

I propose a model that:

- Aligns with Maslow's Hierarchy of Human Needs
- Corresponds to Global Economic Development Needs
- Reflects the global economy and recent trends
- Ties to historical industrial Development – including emerging new industries

The model will have Super-Sectors; Sectors, Sub-Sectors & Industries.

Figure 7 displays the top two levels of an initial proposed Project Management Industry Classification System (PMICS), with some examples for each level two element as to what industries might be included.

This is certainly not all inclusive, and should be refined.

In summary,

Super-Sector 1, Human Health & Well Being, is intended to correspond to the lowest (physiological) level of Maslow's hierarchy and represents basic human needs in all countries. In many developing countries, these also represent industries in need of significant investment. These industries also correspond closely to a number of Millennium Development Goals.^[13] These industries are entirely program/project based during development and in developing economies. In fully developed economies, these industries are becoming more project-oriented as product life cycles are reduced, new products are required, and to build and develop new production.

Project Management Industry Classification System

1. Human Health & Well Being
 - 1.1. Food – agriculture, fishing, basic food production, food distribution
 - 1.2. Water – potable water and supporting industries
 - 1.3. Wastewater & Sanitation – Sewage, wastewater treatment, garbage disposal
 - 1.4. Healthcare – basic medical & healthcare products & services
 - 1.5. Clothing – textiles, basic apparel manufacturing, footwear
 - 1.6. Housing – house design, construction and support services
 - 1.7. Education – primary, secondary, university
 - 1.8. Police & Security – police, intelligence services, homeland security
2. Basic Industries
 - 2.1. Mining, & Natural Resources – including coal, oil, gas, gold, exotics
 - 2.2. Materials – Aluminum, Chemical, Petrochemicals, Steel & other Industrial Materials, Construction Materials, Forest Products
 - 2.3. Energy – electricity production, distribution and storage, including utilities
 - 2.4. Telecommunications – land, space and wireless
 - 2.5. Transportation & Logistics – air, land, rail, water, including airports, ports, rail stations, transportation hubs, maintenance and operations
 - 2.6. Food & Drugs – Other than basic foodstuffs, alcohol, tobacco, discretionary food & beverage products
 - 2.7. Packaging
3. Advanced Industries – Manufacturing
 - 3.1. Aerospace – aircraft and supporting industries
 - 3.2. Automobiles – personal transportation systems
 - 3.3. Defense & Military – defense equipment, materials, supplies, services, including weapons, satellite, aircraft, command & control systems, etc.
 - 3.4. Capital Goods – Machinery, equipment, industrial systems, tools, etc., including electrical equipment
 - 3.5. Social Goods – pharmaceuticals, hospital equipment,
 - 3.6. Consumer Goods – household durables, leisure & sports goods, luxury and discretionary products, photographic equipment & supplies, consumables
 - 3.7. Broadcast & News Media – television, cable, print news, publications
 - 3.8. Entertainment & Leisure
4. Information Technology
 - 4.1. Software & Information Systems – for individuals and organizations
 - 4.2. Hardware & Electronic Devices – including semiconductors, computers, hand held devices, personal and business computers
 - 4.3. Internet & Web-based Systems & Services
 - 4.4. Telecommunications Systems & Equipment – communications & networking components, equipment, systems
5. Professional Services
 - 5.1. Education Services
 - 5.2. Health & Medical Services – hospitals, surgeries, medical analysis, long term care, cancer treatment, etc.
 - 5.3. Engineering & Construction Services – commercial, industrial, residential
 - 5.4. Employment & Human Resources Services
 - 5.5. Accounting and Business Services
 - 5.6. IT Services – data processing, system support, design & development
 - 5.7. Financial Services – banks, mortgage finance, insurance, investments, mutual funds, diversified services, capital markets, real estate investment services
 - 5.8. Management Services – including management consulting and project management support
 - 5.9. Retail, Wholesale and Selling Services – including advertising
 - 5.10. Environmental Services – assessments, clean up, remediation
 - 5.11. Security Services
 - 5.12. Other Professional Services
6. Emerging/Future Industries
 - 6.1. Earth Sciences & Planetary Monitoring
 - 6.2. Life Sciences & Biotechnology
 - 6.3. Humans in Space – near orbit, launch & exploration
 - 6.4. Molecular Physics & Nanotechnology
 - 6.5. New Materials
 - 6.6. New Energy
 - 6.7. Others

Figure 7 – Project Management Industry Classification System

Super-Sector 2, Basic Industries, is intended to capture basic heavy industry required for all others, including materials, energy, transportation, communications and others. It generally reflects some of the primary initial industries of the Industrial Revolution of the 18th and 19th Centuries – as continued through today. This collection of industries is also project-oriented during development, and becoming more project-oriented worldwide. Some industries such as mining and energy are probably 80% project-oriented.

Super-Sector 3, Advanced Industries/Manufacturing, reflects industries created and industrial activity during the latter half of the Industrial Revolution and much of the 20th Century. These industries create products used throughout the economy, by industrial organizations, governmental bodies, commercial enterprises, households and individuals. In these sectors, new investments in product development, facilities, equipment and systems occur in the form of projects. My guess is that these industries are at least 30% project-based, with that percentage growing steadily.

Super-Sector 4, Information Technologies, represents the Information Age of the late 20th and now 21st Century. These industries are growing rapidly, have a huge impact on society and are required for most economic activity worldwide. These industries are even more project/program oriented, perhaps as much as 50%, especially related to development of new software and information systems – now occurring on a non-stop basis.

Super-Sector 5, Professional Services, is almost 100% project-oriented. For organizations in these sectors, most work occurs under contract with outside customers – in other words, as projects. Many organizations in these industries should be project and program management experts, heaving investing in project management education and qualifications.

Super-Sector 6, New Emerging Industries, should also be heavily project-oriented. Projects should range from pure research to the development of products, systems and technologies. Good examples include the massive investments into near-earth space-based climate and weather technologies, commercial space launch systems, and humans in space capabilities (including space tourism). These industries should be at least 80% project-oriented, in my opinion.

Another Super-Sector might be added for Governmental Services, to include city, state, provincial, regional, federal and supra-national governmental organizations, programs and projects. In any case, I will welcome feedback on this initial industry classification scheme. This might also be a good subject for more serious research, if any graduate students reading this may be interested.

Organization Types & Characteristics

While most industries are dominated by commercial organizations, many governmental, non-governmental and non-profit organizations get involved in many of the same types of programs and projects. So questions project management practices, experiences, capabilities and maturity also apply to those types of organizations. This, of course, is a much easier topic to deal with than the classification and groupings of industries, as can be seen in the earlier pages of this article.

In addition to organization types, however, the size, structure, history, culture, location, and management of individual organizations can also impact its capabilities and experiences related to programs, projects and program/project management. Figure 8 shows a proposed set of Organizational Types & Characteristics

Types – Commercial, Governmental, Non-Governmental, Supra-Governmental, Non-Profit
Size – Large Global, Medium Global, Large National, Medium National, Small Local
Structure – Centralized, Decentralized, Operations-Oriented, Process-Oriented, Program/Project-Oriented, Functional Departments, Heavily Hierarchical, Empowered
History – 50+ years; 10-50 years, 2-10 years, newly formed – maturity of systems reflected
Culture – open to new PM concepts or not
Management Maturity – Top management knowledgeable and supportive of modern PM, or not

Figure 8 – Organization Types & Characteristics

These factors must also somehow be considered in a thorough assessment of project/program management practice, experience and maturity.

Types of Programs and Projects

The types of programs or projects must also be considered, in some industries more than in others. The project type will also dictate project life cycle considerations. For example, is the project a research project, design, product development or construction?

Projects can be either hard projects – creating a product or facility – or soft, creating an information system or network, a human-based system (for example, a political organization or joint venture), or an organizational change (restructuring, acquisition, new policies and procedures, etc.).

In addition, projects are created for either internal or external customers, which seriously affects the management approach, conditions for implementation and results. As outlined above for service industries, work performed for outside customers normally occurs under contracts as projects. In those cases, formal project management is much more likely to be required. For internal projects, the level of professional project management and degree of formality will depend on the maturity of the organization, experience of internal stakeholders, project size and characteristics, and other factors.

Figure 9 displays a possible set of considerations for Project Types.

Type – research, design, development, build, turnkey
Nature – Soft, Hard, Mixed
Customer – Internal, External (via contract)

Figure 9 – Project Type Considerations

Program/Project Factors & Conditions

Project/Program factors and conditions are also important. Some projects, of course, are much easier to plan, implement and manage than others. Here are some important considerations:

- **Scope** – large integrated systems, multi-facilities, multi-programs/projects, multiple locations, multiple types, or simpler
- **Cost** – multi billion \$ (mega project); large, medium, small
- **Timeframe** (Schedule) – weeks, month, years – fast track or traditional series approach
- **Resource requirements** – many suppliers & contractors, small number, local or in-house resources, multi-national supply chain
- **Team Composition** – multiple organizations, single employer, outsourced team members, virtual teams in multiple locations
- **Stakeholders** – customers, executive management, employees, suppliers, regulators, general public, multiple publics

- **Uncertainty & Risks** – Is scope well defined or uncertain? Has project been done before or never? Old or new location? Resources previously used or not? Large, complex program/project, or smaller and more straightforward?
- **Complexity** (real & perceived) – often based on the above factors, but also on technical or technological complexity, organizational complexity, delivery complexity or other factors

These and other factors always come into play on programs and projects. How can we combine these factors with industry, organization type, project type, geography and other considerations?

Geographic Location Issues

Project management practices and experiences also vary widely worldwide, depending on the location of both the program/project itself as well as the resources and stakeholders involved. Economic, political, social and cultural factors can come into play, even more so when programs and project involve multiple sites; participants, stakeholders and suppliers in multiple locations; and project team members with different cultural backgrounds.

For purposes of assessing the practice and experiences of program/project management around the world, I propose to use three dimensions: Geographic location; Economic Development Ranking; and Corruption Ranking according to Transparency International.

Geographic Location – by continent and region (Africa, Asia, Asia-Pacific, Caribbean, Central America, Europe, Indian Subcontinent, Middle East, North America, Russian Federation, South America. While Central American countries are relatively homogenous, as are those in North America, Europe might be divided into Northern Europe, Eastern Europe and Southern Europe. Africa might be divided into Central Africa, East Africa, North Africa, Southern Africa, and West Africa, if not more. South America is clearly demarcated between Brazil and Spanish-speaking countries, while other regions might also be subdivided.



Economic Development Ranking – the economic development status of a country or region also heavily affects project management capabilities, practices and experiences. The World Bank’s World Development Indicators ^[14] offer a good set of data on economic and other factors. The Human Development Index ^[15], which measures life expectancy, education and income levels, can also provide a useful perspective related to which country might be more or less conducive to modern project management. The World Bank also publishes a very interesting Doing Business ranking of countries that includes measures for ease of starting and doing business, obtaining permits and credit, and other factors. ^[16] Wikipedia has an interesting ranking of countries by GDP ^[17], and the IMF provides a World Economic Outlook based on their World Economic and Financial Surveys. ^[18]

Corruption Ranking – various types of corruption are common worldwide, ranging from simple nepotism to bribery, fraud and theft. Transparency International publishes statistics and monitors corruption globally. ^[19] They also provide a great interactive map to check individual countries. ^[20] More readable information about Transparency International’s annual Transparency Perceptions Index, with country rankings, can be found on Wikipedia. ^[21]

In summary, the practice, experiences and status of project/program management around the world will also be affected by where the program, project, team, suppliers and stakeholders are located; the economic status of those locations; and their legal and political environments.

Summary of New Model

The model that I hope to use for assessing the status of project management in practice then has at least five dimensions, as follows:

- **Industry Categories** – new Project Management Industry Classification System
- **Organization Type** - Type, Size, Structure, History, Culture, Management Maturity
- **Program/Project Type** – Type, Nature and Customers (inside/outside)
- **Program/Project Characteristics** – Scope, Cost, Timeframe, Resources, Composition, Stakeholders, Uncertainties/Risks and Complexity
- **Geography** – Geographic Location, Economic Development Ranking & Corruption Ranking

The Rest of the World of PM

Discussion of the remaining elements in the World of Project Management model will be presented in future editions of *PM World Today*.

Why Think About the World of PM

We at PMForum use the World of Project Management framework to categorize news and information, on both www.pmforum.org and in this eJournal. We follow these topics. For example, in each edition of *PM World Today*, news articles are grouped into such categories as PM Research News, PM Education News, PM Industry News, PM Profession News, etc. We think this provides a useful context for readers to quickly find those topics and articles of most interest or relevance. In addition, it provides the reader with the opportunity to quickly assess new developments that might affect an organization or career.

Leaders of PM professional societies and organizations can use these categories to better understand more stakeholders in various sectors. For those in national or local associations, perhaps it can help identify new or important issues, topics or stakeholders for future activities.

For organizations, both those using project management and those offering PM products or services, perhaps this model provides new perspective on what might be done differently or better.

The world of project management continues to grow, and grow more visible. For many years now it has been well known that a PM certification is necessary to advance in the IT industry. It should be increasingly apparent that IPMA, PMI or PRINCE2 certification can be equally useful in such industries as agriculture, automotive, construction, entertainment, health and medical services, housing, mining, oil & gas, power, tourism, transportation and many others.



Conclusion

I hope the discussion this month has been useful. But for those of you new to the project management field, perhaps it has provided some new information or perspective. For those of you who are more experienced, I hope it has provided some food for thought. The next editorial in this series will explore more aspects of the practice and experience of project management.

If you have a comment or suggestion related to this month's paper, please send an email to me.

Thank you for reading *PM World Today* this month.

And good luck with your projects.

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About the Author



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David L. Pells is Managing Editor of the *PM World Journal* (www.pmworldjournal.net) and Managing Director of the PM World Library (www.pmworldlibrary.net). David is an internationally recognized leader in the field of professional project management with more than 35 years of experience on a variety of programs and projects, including engineering, construction, energy, defense, transit, technology and nuclear security, and project sizes ranging from thousands to billions of dollars. He occasionally acts as project management advisor for U.S. national laboratories and agencies, and currently serves as an independent advisor for a major U.S. national security program.

David Pells has been an active professional leader in the United States since the 1980s, serving on the board of directors of the Project Management Institute (PMI®) twice. He was founder and chair of the Global Project Management Forum (1995-2000), an annual meeting of leaders of PM associations from around the world. David was awarded PMI's Person of the Year award in 1998 and Fellow Award, PMI's highest honor, in 1999. He is also an Honorary Fellow of the Association for Project Management (APM) in the UK; Project Management Associates (PMA - India); the Russian Project Management Association SOVNET, and the ISIPM (Istituto Italiano di Project Management). In 2010 he was named an honorary member of the Project Management Association of Nepal.

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