

Archibald & Prado Research

2010 Results

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SUCCESS AND MATURITY IN I.T.

Summary Report

Organized by
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We present the **Final Report – Short Version** of the Archibald & Prado Research - 2010 on **Maturity and Success in I.T.** There is also available in the website the **I.T. Report - Complete Version**, which contains all data and a comprehensive analysis of the results.

Considering the complexity of the subject, this research, as the 2006 and 2008 researches, is still an **EXPLORATORY STUDY** that intends to establish a knowledge foundation for further studies. Its objectives are:

- Assess the success level of the Brazilian organizations and compare it to the Standish Group's Chaos Report (www.standishgroup.com/chaos);
- Verify the existence of a correlation between success and maturity levels according to the Prado-PMMM model;
- Verify the existence of a correlation between maturity, success and additional factors (scenarios)
- Identify the main failure causes and stratify them by maturity levels.

Finally, it is important to mention that this phase of the research is carried out under the same confidentiality policy and statistical strictness considered at the first phase.

- Introduction
- Success – General Cluster
- Subcategories: Success and Failure
- Other data obtained in the research
- Main Conclusions of this Research
- Organization team and acknowledgements

Introduction

It is important to make it very clear what is being researched.

The research aims to evaluate maturity and success of **Information Systems (Software)** category projects, as defined by Russell Archibald (for more information about Archibald categories, please visit our website at www.maturityresearch.com).

The participants of this research are sectors (or departments) of organizations that work with information systems development or implementation. In other words, these sectors (or departments) chose the category Information Systems (Software) in the first phase of this research. Thus, these sectors are involved with one or more of the following **subcategories**:

- New software development
- Setup of existing software already under usage in other areas of the organization
- Large maintainance
- Setup of new software acquired from external suppliers
- Setup of software for external clients

Note: Development of informatics equipments (hardware) is considered, in this research, NPD (New Products Development) project and, therefore, is not scope of this report.

This research was carried out in two phases:

- Between September and December 2010: 112 participants
- Between January and March 2011: 61 participants, who participated in the first phase as well. Among these 61 participants, only 47 were considered for the success analysis

This report uses the three samples in its different sections.

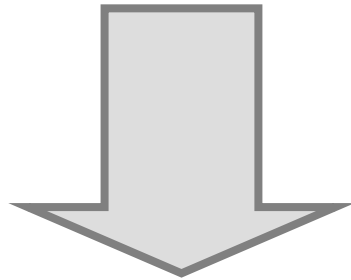
Success

(General Cluster)

FIRST PHASE (Sept to Dec 2010)

AVERAGE MATURITY: **2,55**

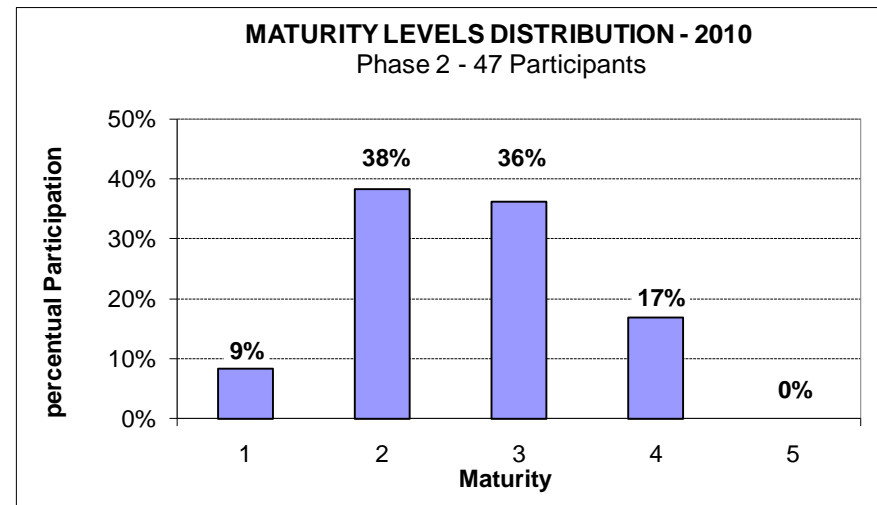
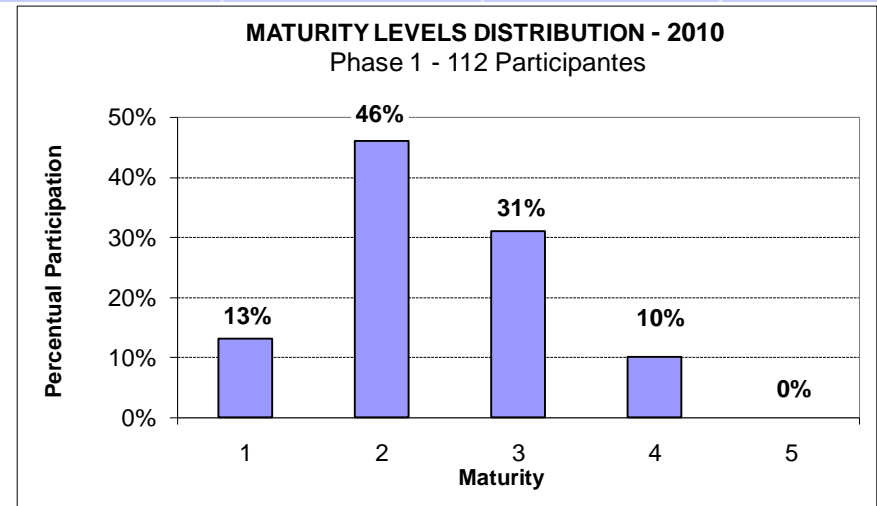
(112 participants)



SECOND PHASE (Jan to Mar 2011)

AVERAGE MATURITY: **2,80**

(47 participants)



The second phase participants are originated from the first phase of the research. It can be observed that the population distribution of the second phase is significantly different from that of the first phase, indicating that there was proportionally more mature organizations in the second phase than in the first one.

More information about the First Phase can be obtained in General Report – Complete Version

Sample Stratification

BUSINESS SECTOR	# PARTICIP.
Food and Beverage	2
Banking, Finance and Insurance	1
Construction	2
Consulting	2
Education	2
Pharmaceutical	1
Mining	1
Metallurgy & Steelmaking	1
Oil and Gas	1
Paper and Cellulose	1
Health	3
I.T.	27
Other	3
TOTAL	47

ORGANIZATION TYPE	# PARTICIP.
PRIVATE	34
GOVERNMENT DIRECT ADM.	5
GOVERNMENT INDIRECT ADM.	6
THIRD SECTOR	2

STATE	# PART.
BA	2
MG	19
RJ	3
RS	3
SP	14
Other	6

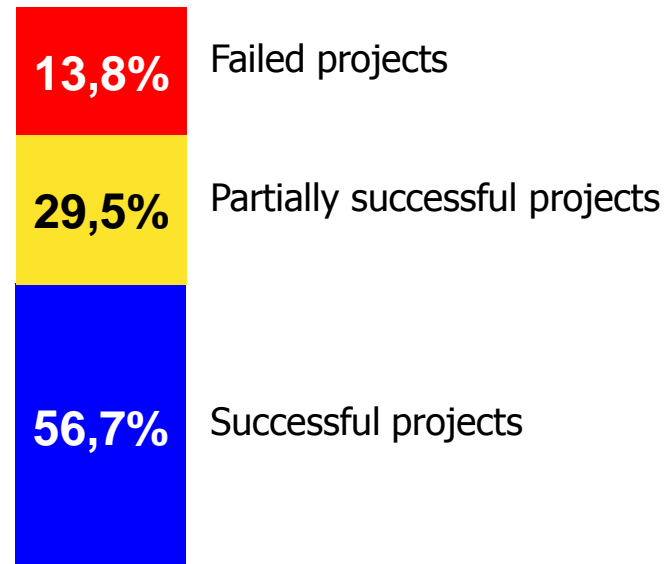
Conclusion: according to the tables shown in this page, most of the participants are originated from:

- Private sector
- I.T. Business Sector
- SP e MG states

The main objective of the second phase was to correlate maturity and success. For this purpose, the definition of success inspired in the Standish Group's model was applied.

- **Successful project (or complete success or just success):** the project was completed within the planned time, scope and budget (insignificant differences are accepted). The end user was fully satisfied, as the delivered product/service is being used and has effectively brought value to his or her work.
- **Partially successful project (partial or compromised success):** the project was closed and the software is being used. However, compromising events happened (significant delay and/or significant cost overrun) and/or the end user satisfaction is only partial, as the product/service do not present all the expected and necessary functionalities and/or do not bring the expected value to his or her work.
- **Failed project:** the project was interrupted or the delivered product/service is not being used because it does not meet the end user expectations or the delay was such that resulted in losses to the business. The user/client was deeply dissatisfied.

AVERAGE OF SUCCESSFUL PROJECTS: **56,7%**
(47 participants)

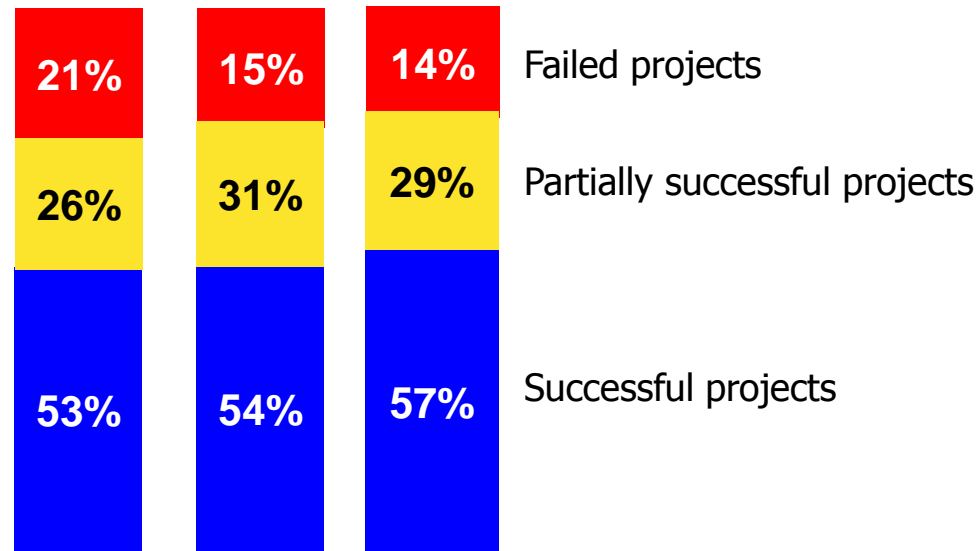


Source:

1) Archibald & Prado 2010 Research – www.maturityresearch.com

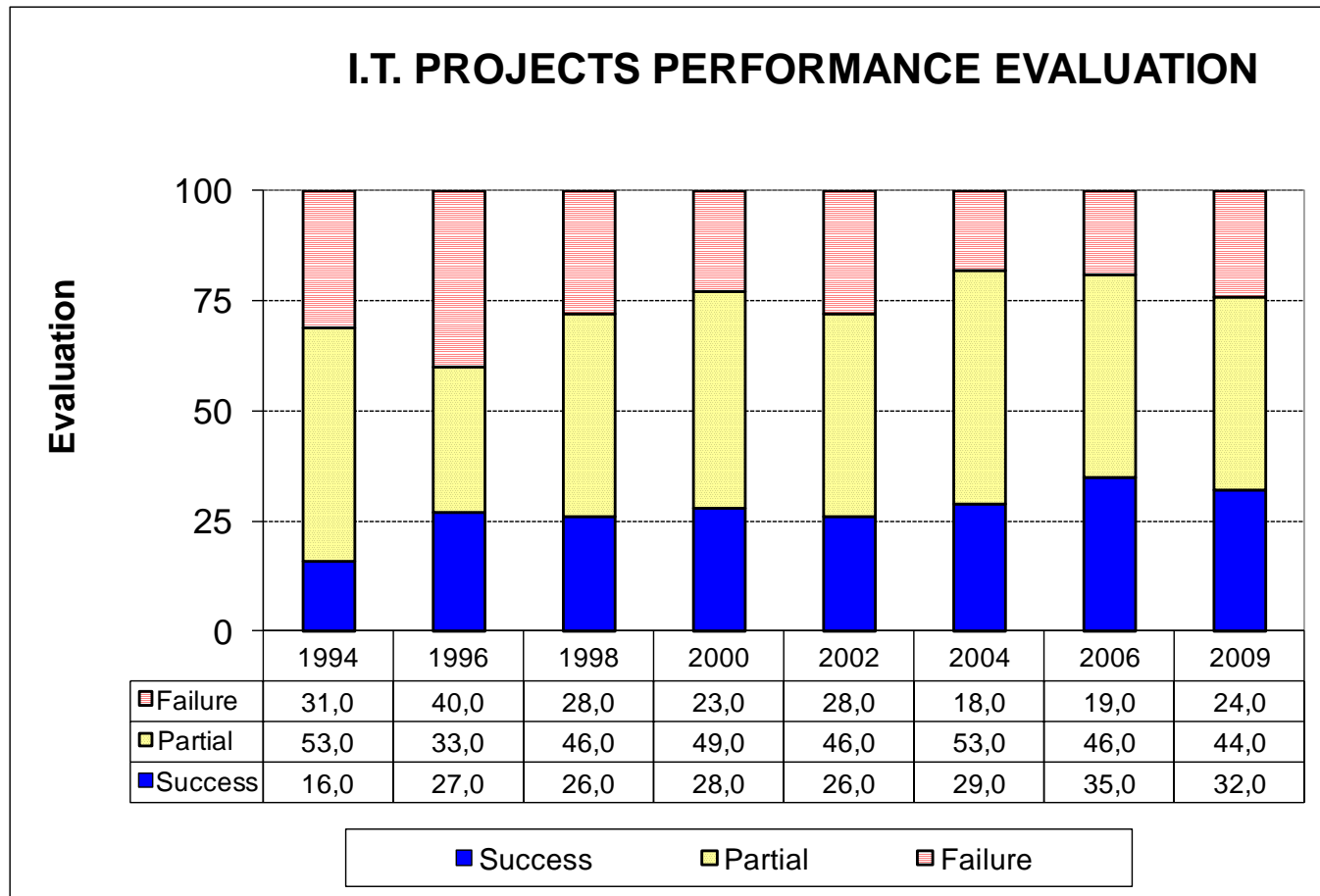
Comparison with 2006 and 2008 results

Year	2006	2008	2010
Maturity	2,37	2,65	2,80



Source:

1) Archibald & Prado 2006, 2008 and 2010 Researches – www.maturityresearch.com



Note: Comparing the Brazilian and the Chaos Report data, it can be seen that only the Failed Projects values are similar, or (what is the same) the sum of Successful and Partially Successful projects values .

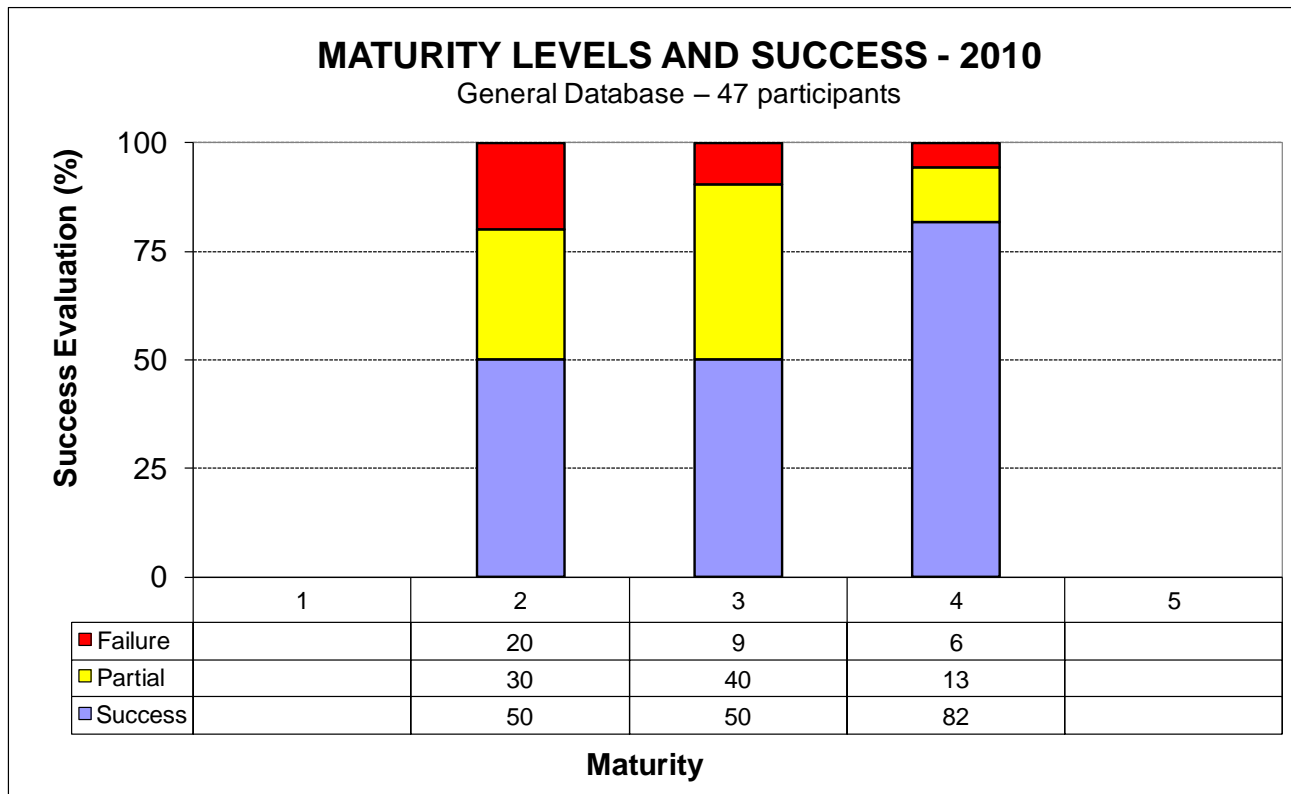
This issue is better addressed in the I.T. Report – Complete Version

Sources:

- 1) Standish Group - www.standishgroup.com/chaos
 - 2) Archibald & Prado 2006, 2008 and 2010 Researches – www.maturityresearch.com
- 2010 PM Maturity Research – Maturity and Success in I.T.

Analysis: Maturity Levels and Success

When we cross relate the maturity levels (Prado-PMMM Model) and success, we obtain the chart shown below, where significant samples were found only for the levels 2, 3 and 4. The chart shows a positive relation between maturity and success if the sum of the two success types (complete success + partial success) is observed. In other words, there is an inverse relation between maturity and failure.



Important note: The size of the sample obtained in this research is very small (47 participants) and it strongly impacts the segmentations, where the samples are even smaller.

SUBCATEGORIES: SUCCESS AND FAILURE

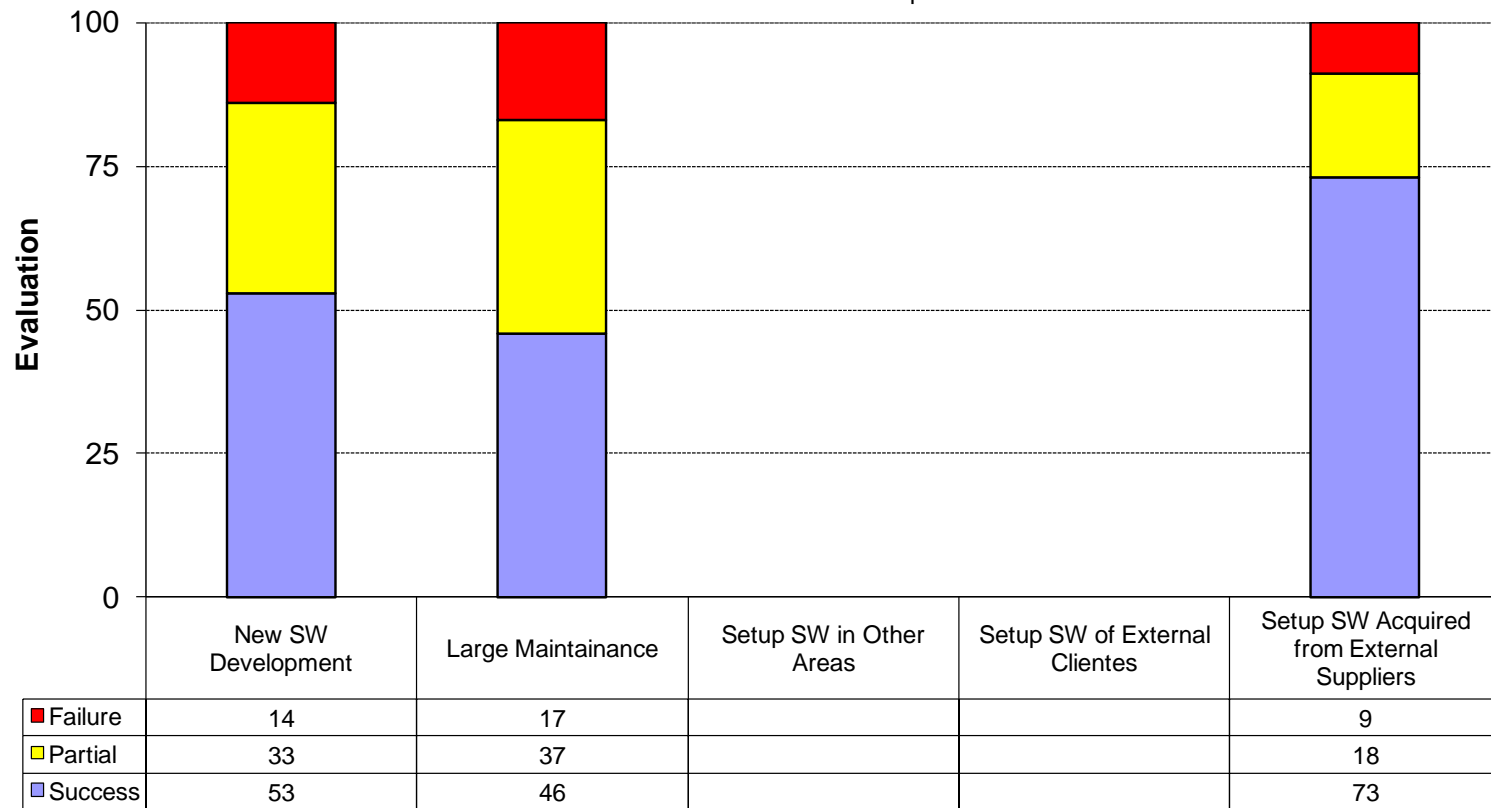
Participation by Subcategories

SUBCATEGORY	# Particip.	%Particip.	SUCCESS	PARTIAL	FAILURE	MATURITY
New SW Development	24	51%	53	33	14	2,80
Large Maintainance	5	11%	46	37	17	2,50
Setup SW in Other Areas	2	4%				
Setup SW of External Clientes	3	6%				
Setup SW Acquired from External Suppliers	13	28%	73	18	9	2,70
	47	100%	56,7%	29,5%	13,6%	

Note: groups with less than 5 participants do not have their results presented

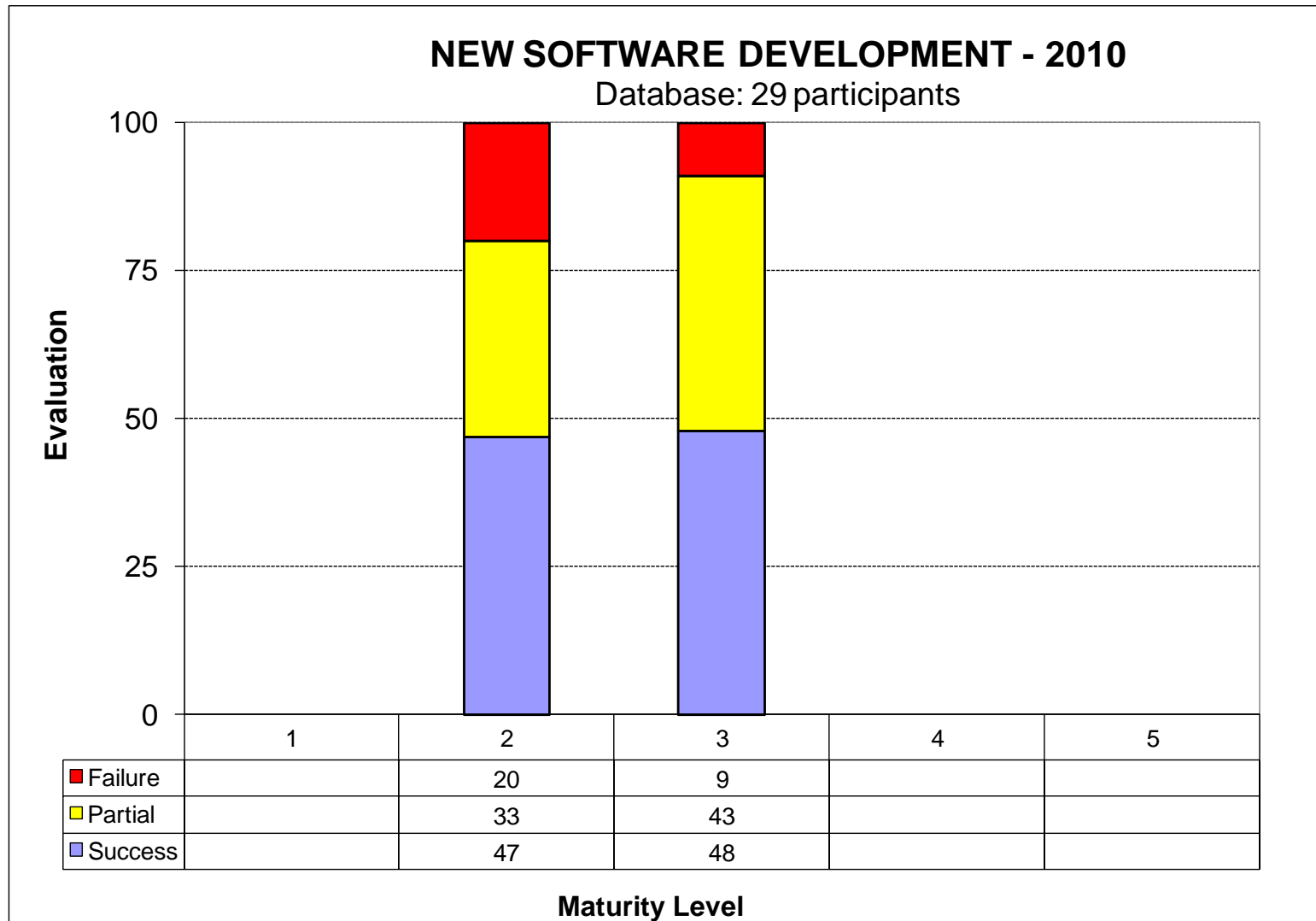
SUBCATEGORIES AND SUCCESS - 2010

Database: 47 Participants



Subcategory

Success versus Maturity Levels for the New Software Development Subcategory

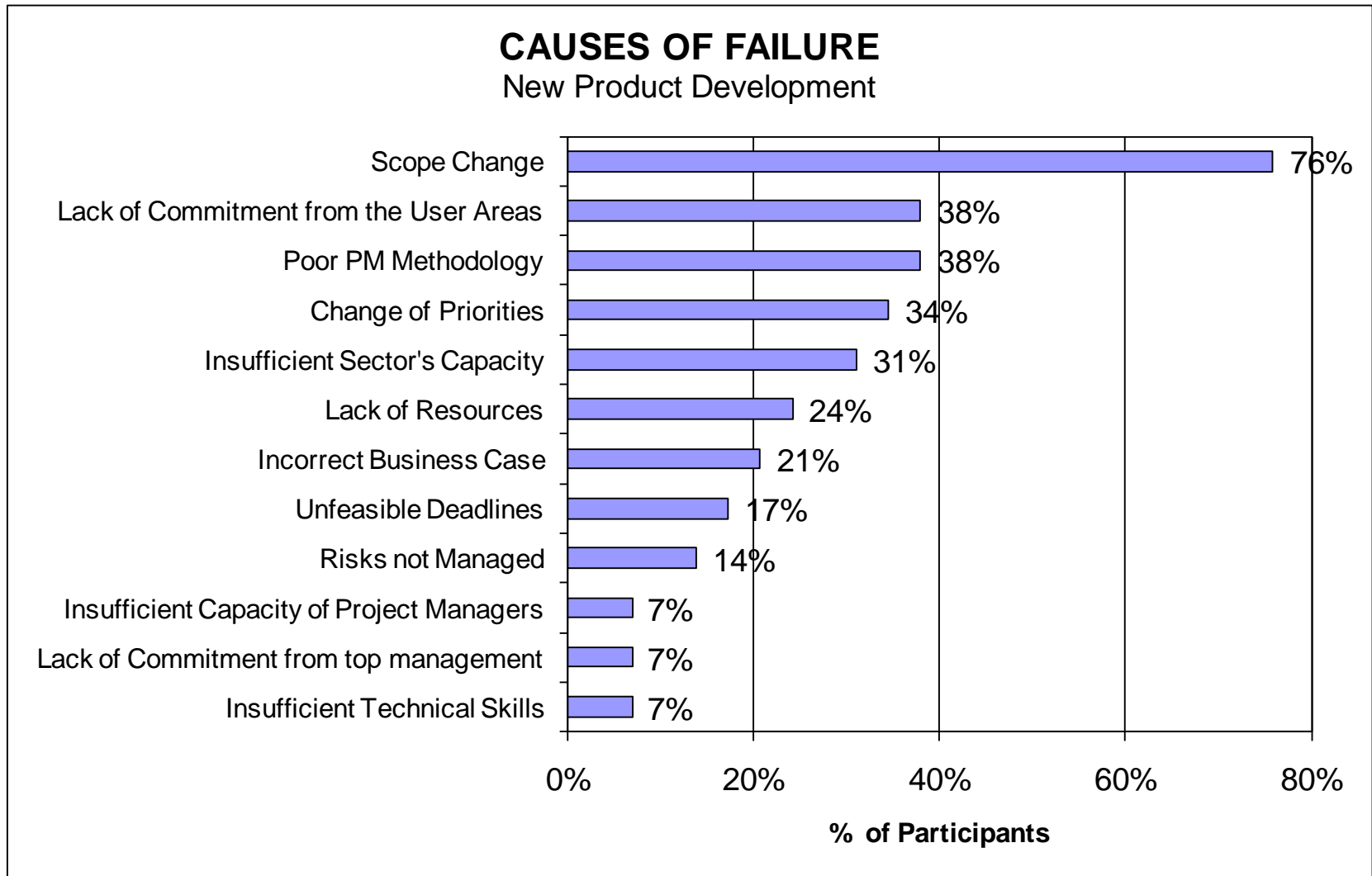


Comment: The failure level decreases as we move from level 2 to level 3

In the research, the participants were asked to point the three main causes of their projects failure, according to the following list:

- a) Incomplete or incorrect Business Case (or Business Plan)
- b) Frequent scope change
- c) Frequent priority changes among the projects portfolio, coming from top management
- d) Unfeasible deadlines
- e) Project portfolio size beyond the sector's capacity to deliver
- f) Insufficient or inadequate commitment from the user areas involved
- g) Insufficient or inadequate commitment from top management
- h) Lack of human, financial and material resources
- i) Poor methods, tools and techniques for the projects management
- j) Insufficient managerial capacity of the Project Managers
- k) Technical I.T. skills of the team insufficient or inadequate to the challenges
- l) Risks not properly managed

Failure Causes for the New Software Development Subcategory

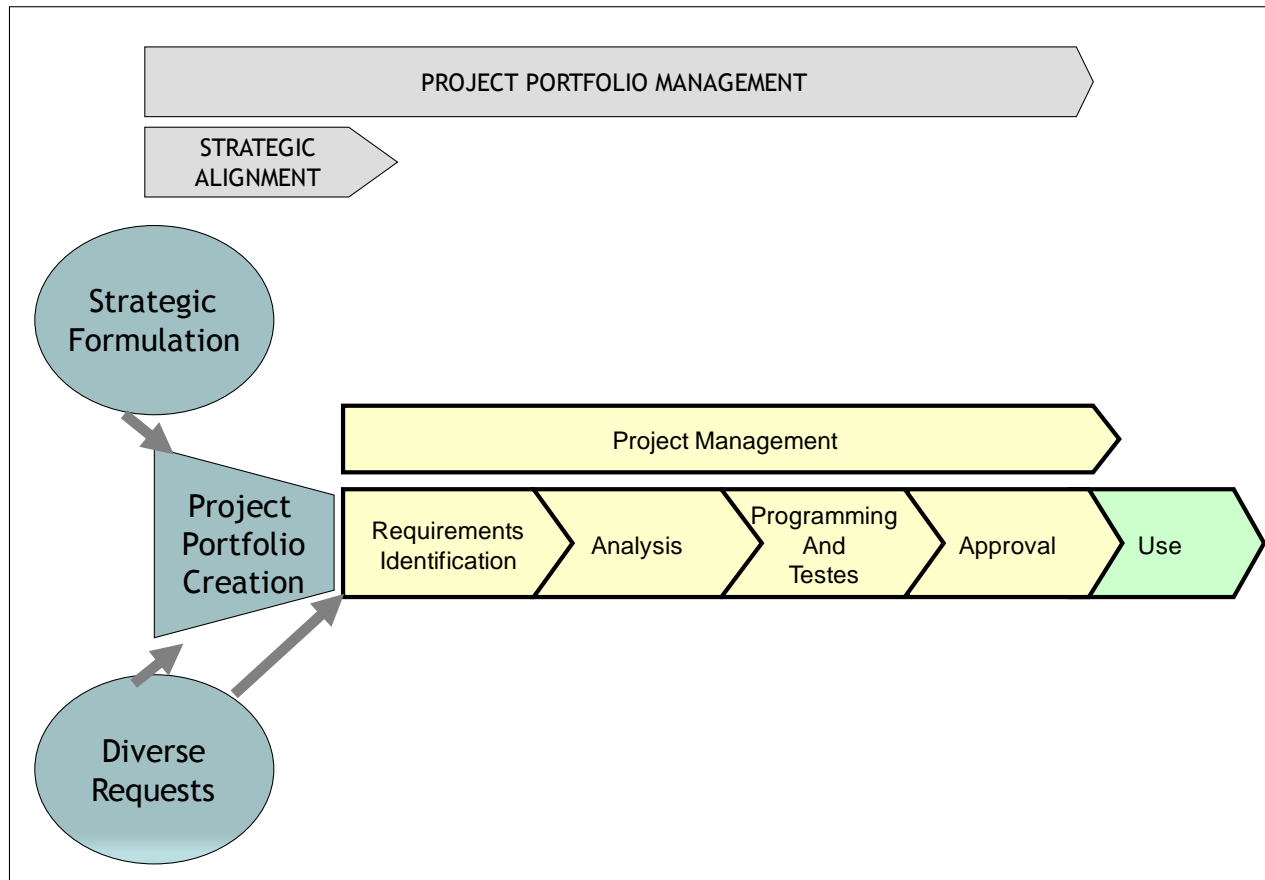


Comments: note that **Poor PM Methodology** is one of the main failure causes.

Sample: 29 participants

THE ORIGINS OF THE FAILURE CAUSES OF THE NEW SOFTWARE DEVELOPMENT SUBCATEGORY ARE FOUND:

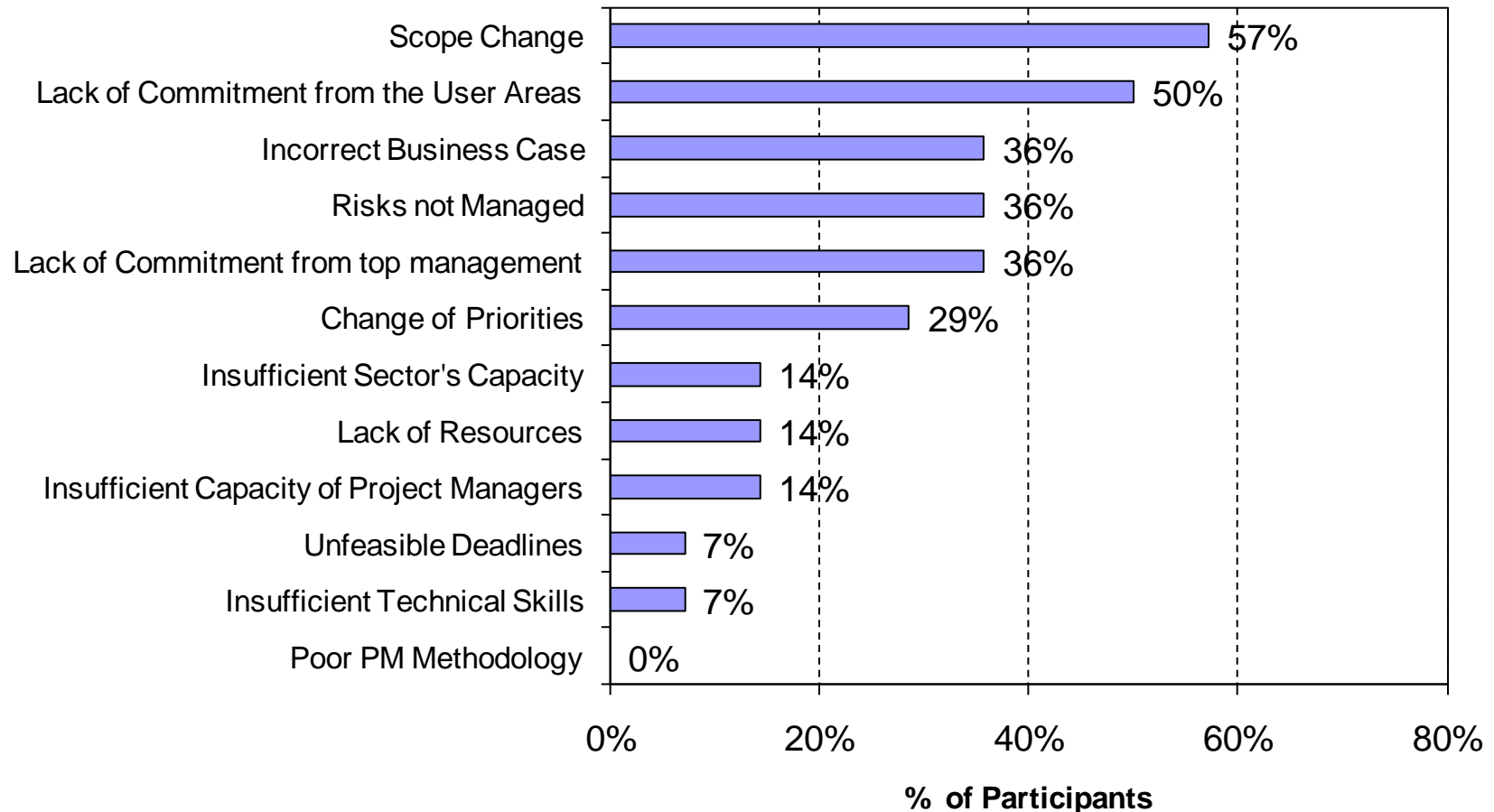
- During the project life cycle (Project Management)
- Before the project life cycle (Strategic Alignment with Corporate Business)



Failure Causes for the SW from External Suppliers Subcategory

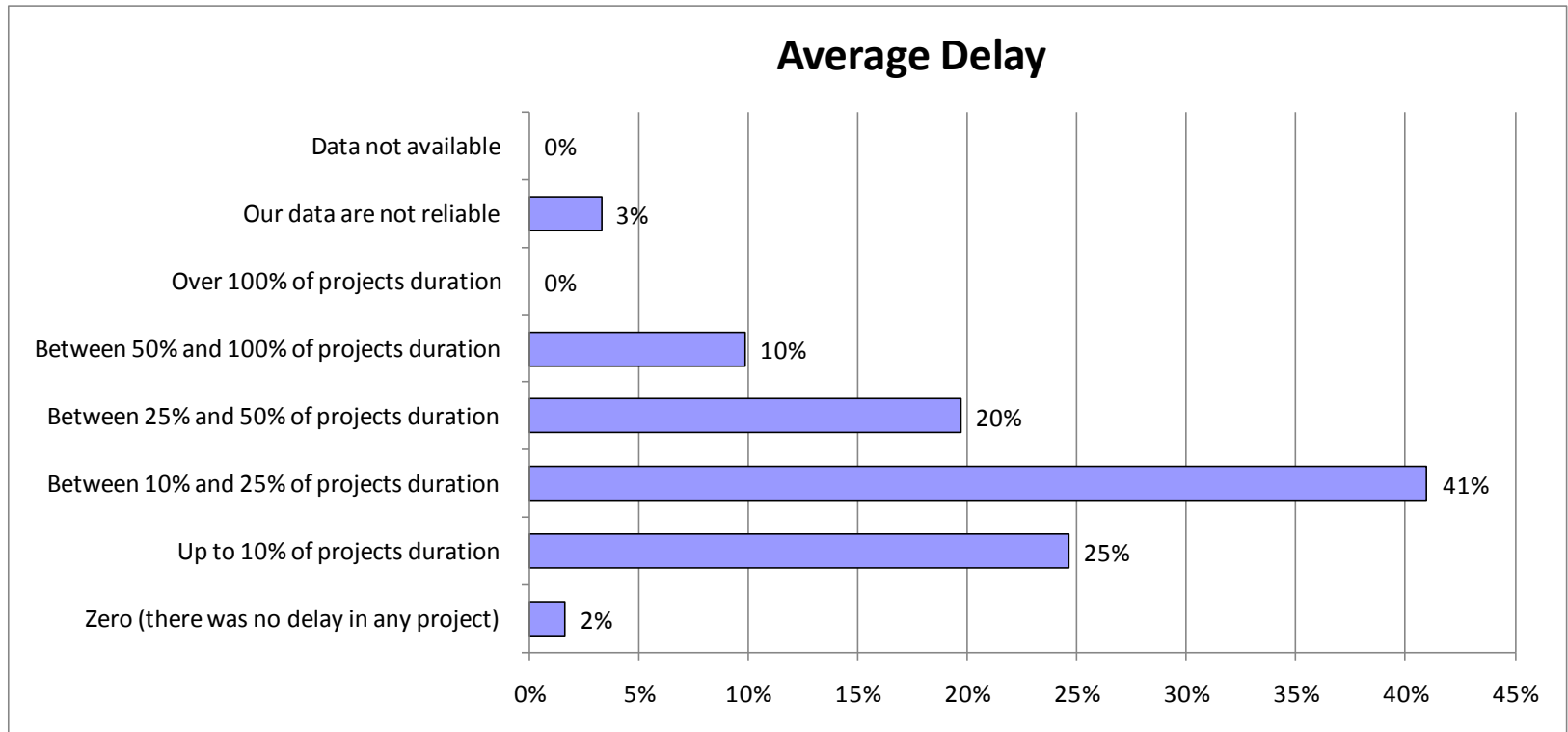
CAUSES OF FAILURE

Setup of New SW Acquired from External Suppliers



Sample: 14 participants

OTHER DATA OBTAINED IN THE 2010 RESEARCH

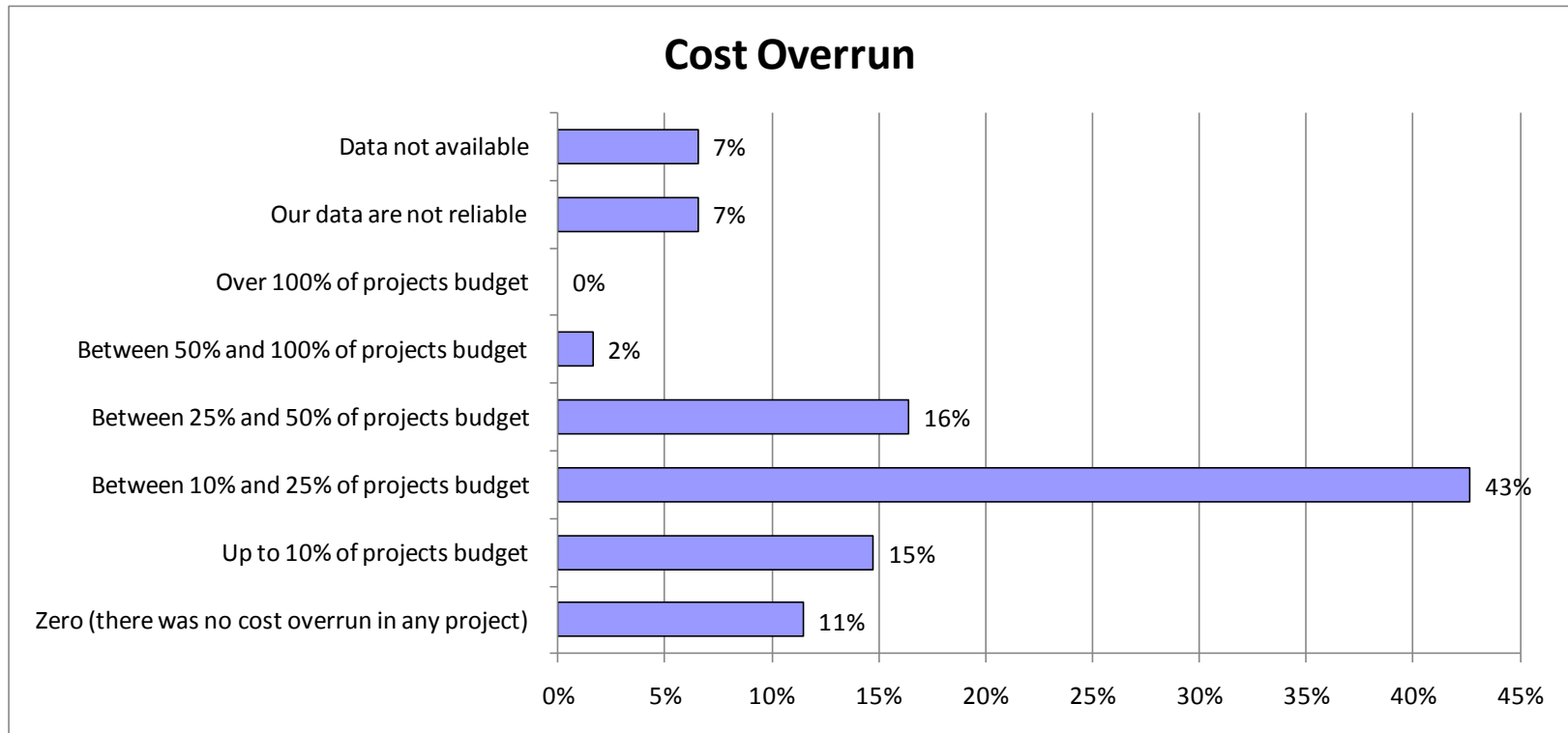


Comment: 71% of the projects had a delay higher than 10% of the initial estimate.

Source:

- 1) Archibald & Prado 2010 Research – I.T. – www.maturityresearch.com
- 2) Sample: 61 participants

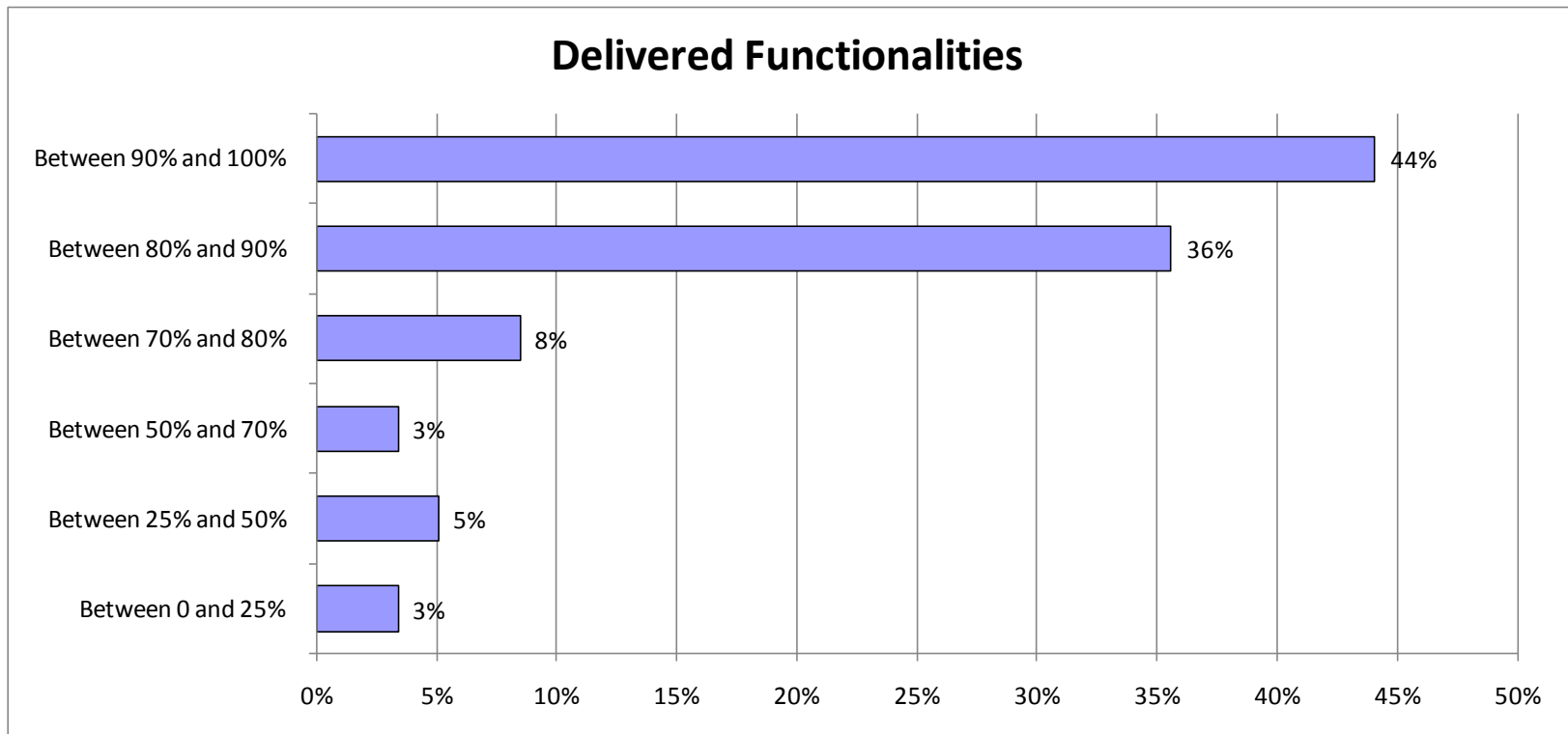
Projects Average Cost Overrun



Note: 61% of the projects had a cost overrun higher than the initially estimated budget.

Source:

- 1) Archibald & Prado 2010 Research – I.T. – www.maturityresearch.com
- 2) Sample: 61 participants

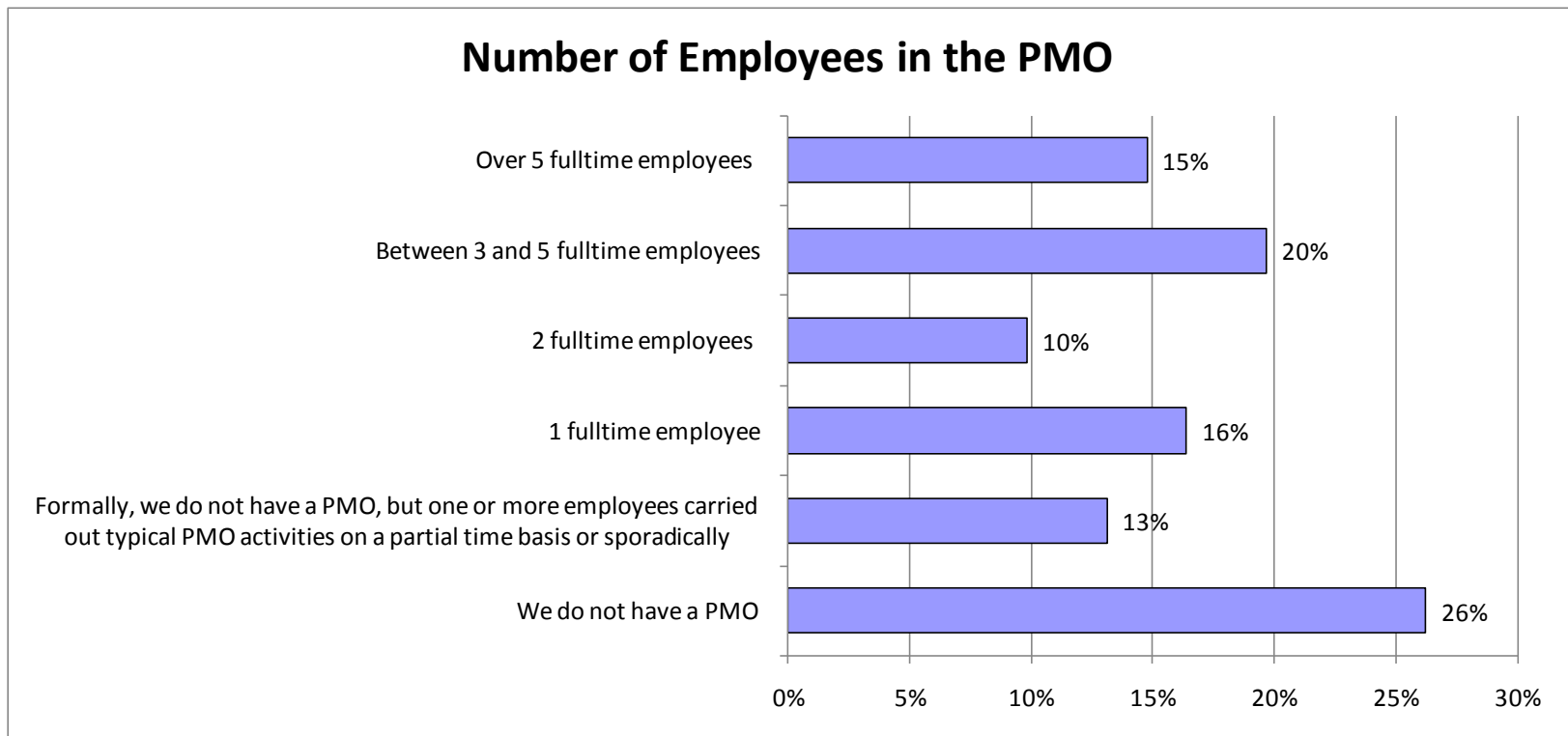


Comment: 80% of the closed projects delivered over 80% of the functionalities originally planned.

Source:

- 1) Archibald & Prado 2010 Research – I.T. – www.maturityresearch.com
- 2) Sample: 61 participants

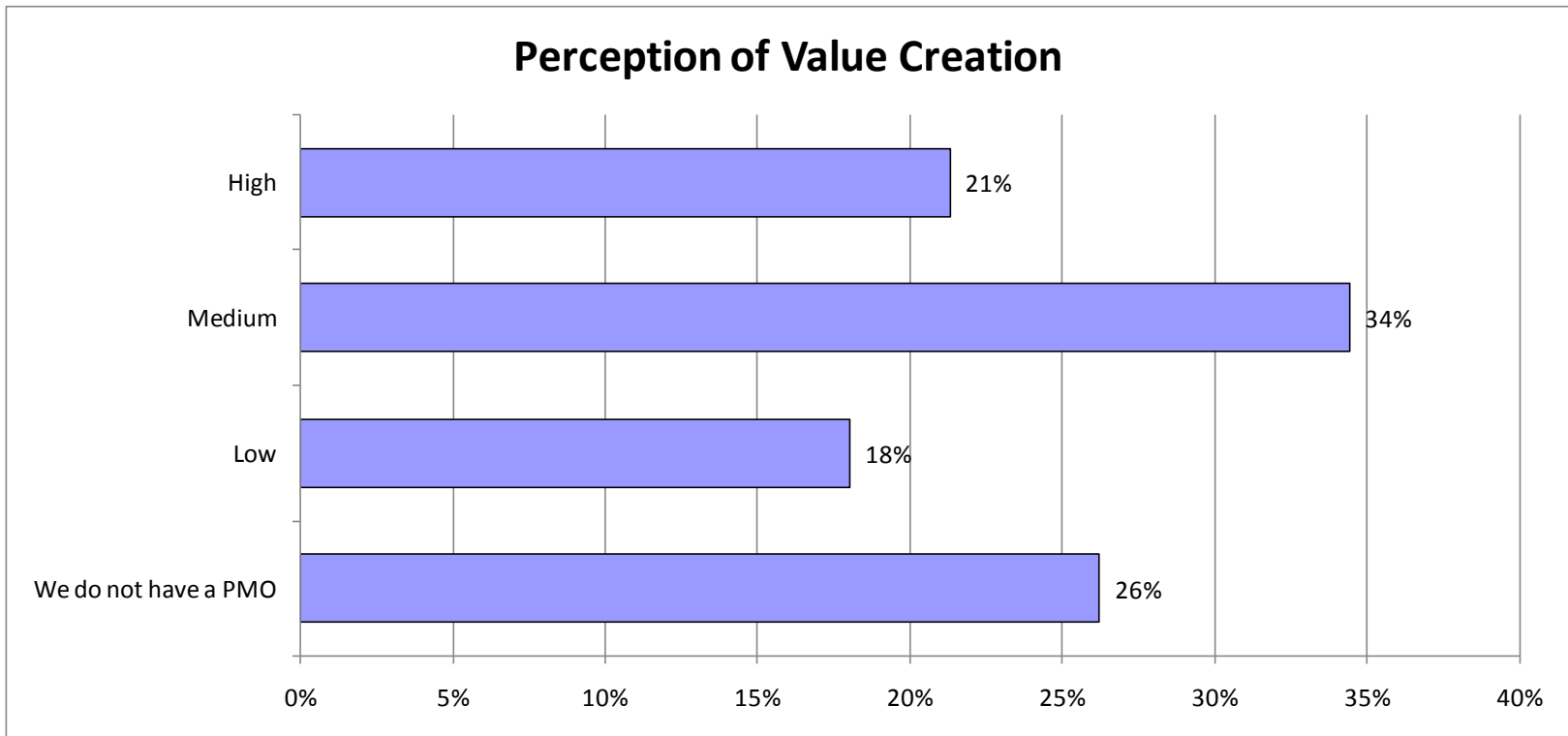
Number of Employees in the PMO



Comment: 61% of the organizations have 1 or more fulltime employees in the PMO.

Source:

- 1) Archibald & Prado 2010 Research – I.T. – www.maturityresearch.com
- 2) Sample: 61 participants



Comment: 65% of the organizations said that PMO create medium or high value

Source:

- 1) Archibald & Prado 2010 Research – I.T. – www.maturityresearch.com
- 2) Sample: 61 participants

PROJECTS CLOSED IN 2010	#
Up to 5	13
Between 5 and 10	16
Between 10 and 30	14
Between 30 and 100	14
Over 100	4

LIFETIME OF THE PMO	#
Do not have a PMO	18
Up to 1 year	7
Between 1 and 2 years	8
Between 2 and 5 years	19
Over 5 years	9

NUMBER OF PROJECT MANAGERS	#
Up to 5	37
Between 5 and 10	5
Between 10 and 20	6
Between 20 and 50	6
Over 50	6
Did not answer	1

Conclusion: according to the tables of this page, most of the participants of this research have the following characteristics:

- Closed up to 100 0 projects in 2010
- PMO: half of the participants is up to 2 years old and the other half is over 2 years old
- Have up to 5 employees involved with projects leadership
- We have a total amount of about 2.000 projects related to the database obtained in the research (61 participants)

PMP (PMI) CERTIFIED EMPLOYEES	#
None	21
Up to 5	27
Between 5 and 10	6
Between 10 and 20	4
Between 20 and 50	2
Over 50	1

IPMA CERTIFIED EMPLOYEES	#
None	53
Up to 5	6
Between 5 and 10	0
Between 10 and 20	1
Over 20	0
Did not answer	1

CMMi CERTIFIED ORGANIZATIONS	#
We are not certified	51
Level 1	2
Level 2	6
Level 3	1
Level 4	0
Level 5	1

MPS-BR CERTIFIED ORGANIZATIONS	#
We are not certified	51
Level 1	4
Level 2	2
Level 3	1
Level 4	1
Level 5	2

MAIN CONCLUSIONS OF THIS RESEARCH

- There was an evolution of the average maturity between 2006 and 2008, but no evolution was observed between 2008 and 2010;
- The average overall success for 2010 is 57%, with the following distribution:
 - 53% for the *New Software Development* subcategory;
 - 73% for the *Setup of new software acquired from external suppliers*;
- The average overall value of success in 2010 (57%) was slightly higher than in 2008 (54%);
- The maturity level 4 corresponds to a success rate over 80%;
- There is a positive relationship between success and maturity, observed in 2006, 2008 and 2010 researches . The higher the maturity, the greater the success;
- The PMO plays an important role in the development of maturity and success, for any company size. In organizations where the lifetime of the PMO is between 2 and 5 years, we have the best value for maturity (3,26) and Complete Success (73%);

- In general, there is no agreement among the organizations surveyed about the importance of the PMO. Also noteworthy are the cases where the lifetime of the PMO is between 2 and 5 years, where there is a better perception of value creation by the PMO;
- With regard to the other organizational elements surveyed (Project Manager and Committee), there was also no solid utilization. Committees were the less utilized element;
- The main cause of failure is still "change of scope". It reaches 73% in the subcategory *New Software Development* and 57% in the subcategory *Setup of new software acquired from external suppliers*. Their sources point to:
 - Deficiencies in the stages of project management during the project life cycle;
 - Deficiencies in the stages previous to the development cycle, ie, the Corporate Business Alignment processes of the Project Portfolio Management.

Organizing Team and Acknowledgements

COMMITTEE

Russell Archibald, Darci Prado, Carlos E. Andrade, Fernando Ladeira,
Manuel Carvalho Filho, Marcus Vinicius Marques and Warlei Oliveira

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Italian language: Theodoro Procopiu, Lucas Pinheiro, Carlos E. Andrade and Italian team

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Carlos E. Andrade

DATA HANDLING

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I.T. SUMMARY REPORT

Darci Prado, Warlei Oliveira and Daniel Lages von Sperling

I.T. COMPLETE REPORT

Organized by: Andriele Ribeiro
Authors: see Complete Report

PROMOTION

Darci Prado, Rosania Fernandes, Andriele Ribeiro, Maria Fátima B. Borssatto, Carlos Ely and Daniel Furletti.

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