PMO AND PROJECT SUCCESS
THE IMPORTANCE OF A PROJECT MANAGEMENT STRUCTURE
SURVEY BY SWISS COMPANIES

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Abstract:
The faculty of Innovative Technologies of the University of Applied Science of Southern Switzerland (SUPSI), starts in November 2017 a study for assessing the importance and the diffusion of a project management structure in the Swiss companies.
The study, has been based on a structured Survey, written in four different languages (Italian, English, German and French) sent to a huge pool of Switzerland companies and it aims to understand the maturity level relating to managing projects. More precisely, the following research study focuses to analyse the existence of dedicated office for project management (i.e. PMO) in the inquired companies and therefore its correlation with project's success rate by identifying the most important criteria and factors responsible for such a positive outcome.
This research will provide objectives and unambiguous results showing the importance of a central entity/office (PMO). The presence of this internal structure into a company makes the difference to the project's success achievement and to the overall strategic management, resolving the very common lack of leadership and lack of clear business objective understanding.

Keywords: Project Management Office (PMO), Project Success, Survey, research

1. INTRODUCTION

The reason why an organization should decide to set up a PMO is especially to reach the target in driving project efficiently and consistently. Furthermore, it should guarantee alignment with business objectives and prioritizing projects effectively, provide and continuously optimize the best practice.

Projects success rate is not directly linked to the existence of a PMO in literature but, a correct implementation of a Project Management methodology, efficiently integrated in to the company's context, it is a relevant contribution to reach the Project objectives and aims.

The function of project management methodology enables Project Management Office to: introduce a standard approach to project management which can be used by all project managers, introducing the best practice, gain consensus across the organization's relevant business and technical areas for a proper PMO implementation, collect and provide a collection of applicable data and analyse of project performance (Gerard, 2014).

The collected results aims to understand, if through an existing Project Management Methodology, a multi-projects methodology solution has been developed and implemented; furthermore, the methodologies maintenance, in terms of implementation and performances monitoring, determine the company maturity level.

1.1. Development of the study

After several failed tentative to establish a more efficient way to manage projects, the institution of a central coordination office became a necessity.
This is the main starting point of our research and moreover, trying to answer why and how the use of a Project Management Office is relevant to grow up the company's maturity level.
This article reports feedback from more than three hundred Swiss Companies; the study has been structured into 4 main areas with specific questions, in order to obtain a wide understanding of the maturity of the Swiss companies in the project management field. The 4 areas covered the following main topics:

- project management; to have a preliminary indication of the project management methodology applied in the organization
- project management corporate structure; to collect data about the organizational structure connected with project management
- strategy management; to highlight any possible breach which might have an impact on project' success
- project success; to finally evaluate project's results and the basis for their evaluation

Thanks to the obtained results, you will be able to:

- Know which is the cultural level as general overview in project management;
- Know which are the most known/used PM tools;
- Figure out the relationship between Projects success rate and PMO presence;
- Understand which is the Companies propensity to lift up their knowledge and maturity.

1.2. Development of the study

The translated questionnaire, in electronic form using the software Survio, available (not for free) to: https://www.survio.com/, have been deployed and submitted to the Swiss enterprises, working and operating in different sectors on the territory. Even former graduates in project management of SUPSI were invited to participate in the survey.

1.4. Distribution List – Target

The distribution list is formed mainly by individual personal contacts of the researchers, trade organizations, professional contacts and by students and former students and recreation.
The list is made up of about three hundred contacts who were sent the survey via email.
The invitation has been pushed two times in two months, to push the interviewees to respond to the survey.

2. CRITERIA AND FACTORS: STATE OF THE ART

The factors analyzed in the present study are the importance of a project management structure and its benefits on project success rates.

2.1. Importance of Project management office

The definition of a PMO it's a competitive strategy where executives identify and co-ordinate the programs and projects that will turn their intentions into reality. Literature reported that PMOs are not only impacting positively on project management performance, but are boosting organizational performance as a whole. With the objective of reducing risk and stay competitive, company's leader are focusing on the alignment of project and programs to long-term strategy. For this reason, the role of the PMO is to support organizations in such a way to strengthen this connection, providing training, mentoring and developing capabilities for people, facilitating knowledge management through knowledge transfer, and performing portfolio management functions to ensure strategy alignment and benefits realization.
Since many industries often undergo rapid changes, project management methods that allow for accelerated development and rapid learning are becoming critical to serving the business. For this reason organizations are strongly looking for solutions able to speed product's time to market, which could be feasible implementing a structure able to support project, program and portfolio manager in the daily work activities, standardizing and providing technical support, for efficient project delivery.
The top five activities of the PMO might be summarized in the following:
- Clearinghouse and management for project policies, procedures, templates and other shared documentations
- Central monitoring of all project timelines and budgets
- Identification and development of project management methodology, best practices and standards
- Coordination of interdependencies between projects
- Central office for operation and management of project tools, such as enterprise-wide project management software

But companies with a PMO structure are still low, even if the majority of the companies working on projects are evaluating the importance of implementing this strategical entity. Literature [1] results show that only 65% of the respondents have a PMO, with the responsibilities showed in the graphic:

**Picture 1**: Distribution of PMO responsibilities
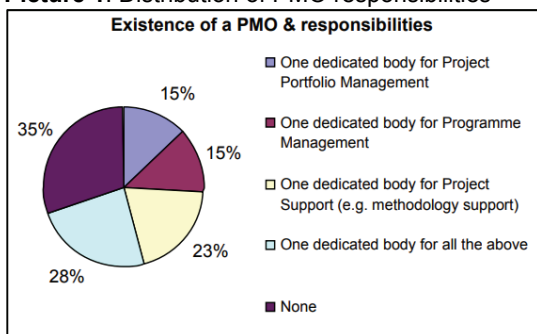
A study [4] conducted by PMI, shows that usually the implementation of a PMO structure is initiated and supported for the 38.8% by top management, as a necessity for improving project's results, for having a formal and consistent project's approach and generally for strategic reasons. But it is reassuring that 89% of the companies will start or continue to invest in PMO in the next years.

2.2. Project success

A study [3] conducted by Accenture, shows that nearly 70% of organizations implementing PMOs, report that project success rates have improved significantly as a result.

Picture 2: Project's success rate connected with PMO existence
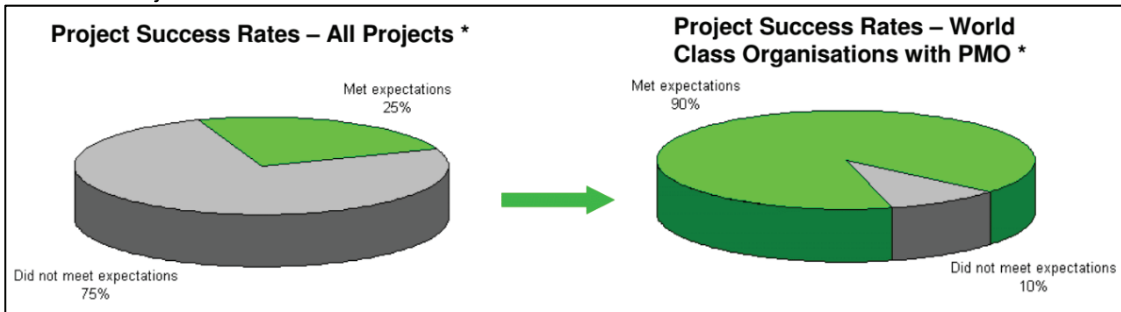
It is believed that companies establishing standards for project management, in particular a PMO with suitable governance, experience half the major project cost overruns, delays and cancellations of those that fail to do this.

Ernst & Young [2] reported the same conclusions, showing that companies having a project office in place, regardless of the tasks and responsibilities of the PMO, show better results in terms of project performance.

Picture 3: Differences in project performance with and without PMO
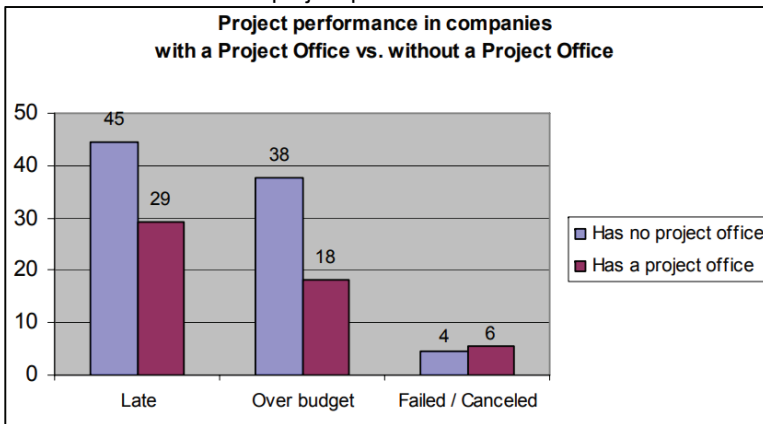
The same positive outcome has been shown by PMI-NIC in a research [4] study evaluating PMO implementation state in the Italian companies. The study highlights that the definition of a PMO has significantly increased project's success of the initiative for the 55% of the participants, decreasing, on the other side, business risks connected with company's initiatives.

Picture 4: Increase of company's initiative with a PMO
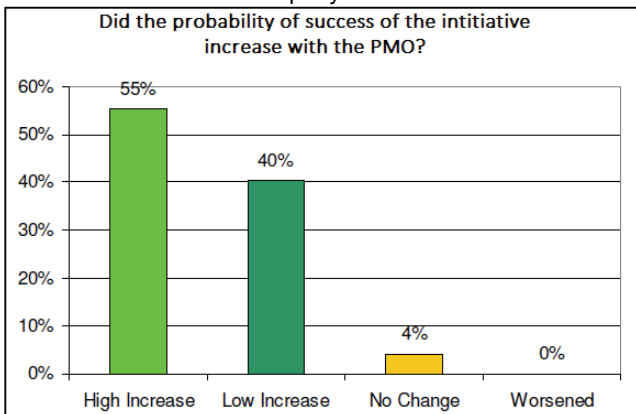
3. SURVEY

"The key to obtaining good data through a survey is to develop a good survey questionnaire".[1]

The survey questionnaire presents a series of questions to subjects who will provide us with the data necessary for our research. It might seem like an easy job to propose a series of questions in order to gather information, but the practice teaches that there are some aspects to be taken care of in order to obtain valid results.

Before we even begin to design our survey questionnaire, we fixed the objectives for our research and list out the information that we are trying to capture. This list of objectives and research goals (see chapter 5) will serve as our plan for the survey questionnaire. We can use our objectives to go back through the questions and determine if each of the questions is providing we with information that we need.

To collect information, there are two different types of questions to use. The first type is called structured or fixed answer question and the second type is open question. Our survey questionnaire is based entirely on the type of structured and fixed questions.

Structured and fixed questions are questions that offer the respondent a closed set of responses from which to choose. The data collected with a structured question are much simpler to analysis. A structured question takes less time to answer. Structured questions are best suited when you have a thorough understanding of the responses so that you can appropriately develop the answer choices. When we wrote the selection of responses for a structured question, we made certain that the list covers all possible alternatives that the respondent might select and that each of the answers is unique (i.e. they do not overlap).

Sometimes, including general catches all responses (such as "Other", "Don't know", "None of the above", etc...) at the end of a list of answer choices help to ensure that the data you are collecting will be accurate. Without a catch-all phrase, a respondent who doesn't find the answer that applies to them is forced to choose an inaccurate answer in order to complete the question. Using the " Don't know " option in a list of answers to a question can help respondents who do not know what to say and ensure valid data collection. However, the "Don't know " option must be used when it is really necessary to avoid creating too much confusion. We tried to ensure that our respondents are capable of answering the majority of the questions on our survey questionnaire.

We also made sure that all of the answers are relevant to the question. Irrelevant responses may distract the respondent in addition to adding unnecessary length to our survey questionnaire.

The questionnaire is in Italian and translated in 3 other languages, English, German and French. It was created by using the web app Survio and shared to the Swiss enterprises, working and operating in different sectors on the territory.

To be sure of developing a good survey questionnaire we followed the ensuing simple guidelines:

Good introduction. It is possible that some potential interviewees decide to complete the questionnaire after having viewed the first page. So we need to implement the introduction to keep the respondents hooked to the questionnaire. We ensured that the introduction contains principally a thank you statement, the topic of the study where we explained why we conducting the questionnaire, how the data will be used and a confidentiality statement.

Include instructions with our survey questionnaire. What may seem obvious to we probably is not very obvious to someone else. To ensure that we collect valid survey results, we made sure we include instructions on how to answer the survey questionnaire, and additional instructions for specific questions as needed.

Questions short and concise. The formulation of the survey questions should be short and concise. We have tried to clearly indicate the questions in order to avoid misunderstandings about what we want to ask. We have solved this problem by having the questionnaire examined and tested by a small group of people before distributing it.

Ask only one question at a time. This is one common mistake in survey questionnaires. This problem is likely to have a major impact on the results generated by data collection. The content of the question must ensure that one request is made at a time so as not to create confusion.

Make sure the questions are impartial. When we had developed our survey questionnaire, we wanted to make certain that we are asking the questions in a neutral way, i.e. that you are not leading them toward a particular answer. It is not easy to express the questions without being influenced by our basic opinions.

Group questions by subject. Clarifying questions by subject is a good way to organize work. In this way our interviewees were able to concentrate their thoughts and answer questions in a faster and more efficient way.

The questionnaire has been structured into 4 main areas with specific questions, in order to obtain a wide understanding of the maturity of the Swiss companies in the project management field. The 4 areas covered the following main topics:

1) project management; to have a preliminary indication of the project management methodology applied in the organization. We want to understand if a particular project management methodology is used within the interviewee's company, such as PMI. In addition to this, information is requested about the

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[1] *https://www.sciencebuddies.org*

enhancement of personnel within the company and the promotion of the project management theme. Some questions are focused on the various PM tools used by the company.

2) project management corporate structure; to collect data about the organizational structure connected with project management. Collect data on the organizational structure related to the management of the project. In particular, with targeted questions, we enter into one of the specifics research's subjects, that is the PMO.

3) strategy management; to highlight any possible breach which might have an impact on project' success.

4) project success; to finally evaluate project's results and the basis for their evaluation. In this last section we go directly to investigate the second subject of our research that is the success of the projects within the interviewed company.

The central core of the questionnaire has been anticipated, with 12 questions, by an anagraphical data collection, to evaluate if the geographical location, cultural aspects or operating sector might have an impact on the project management methodology and/or projects success.

Questions exposed in an organized and clean layout. We developed layout will made it much simpler for people to respond to the questions and for we to collect the data. We made sure that our method for marking answers is well explained and that our answer boxes are consistent throughout the questionnaire.

In today's world, all digital channels are converging on mobile devices, making it imperative for our survey solution to provide respondents with an engaging experience on any smartphone or tablet. It is very important to makes it easy to build, distribute & manage surveys that seamlessly adapt to any mobile device, allowing us to reach every respondent effectively.

Test the survey questionnaire. Once we developed our survey questionnaire, we conducted a small test (8 people) to make sure that respondents clearly understand the questions we had asking and that we had capturing the information that we will need for our study.
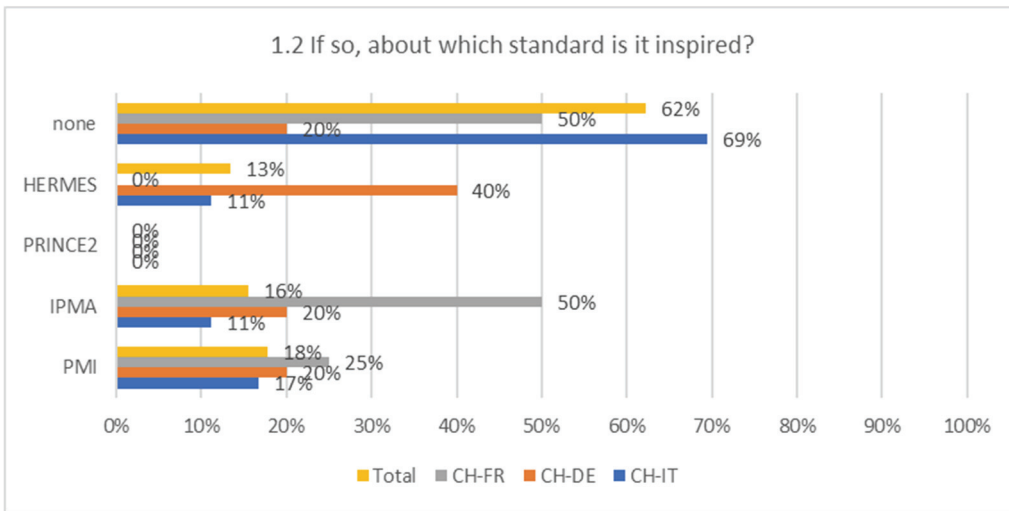
4. RESULTS

In this section we are going to explain the results of the survey helped by using the graphics.

**Picture 5:** Methodology used in the company
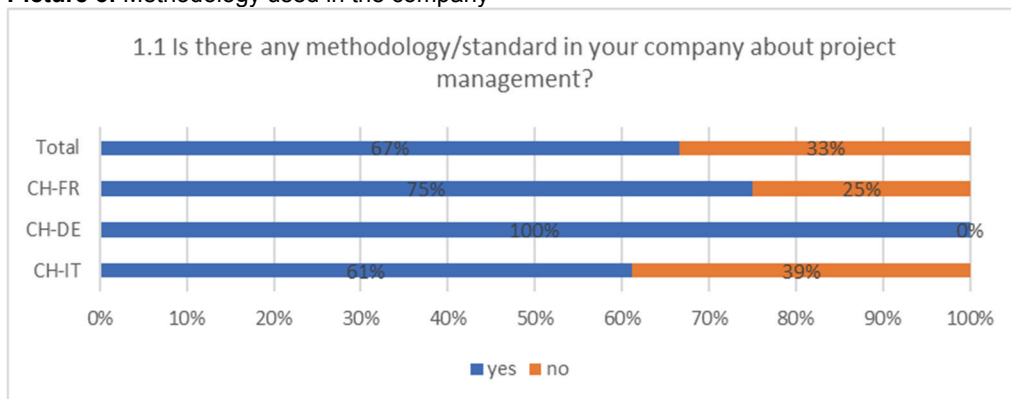
The question gives the result that most of the consulted companies have a methodology for the project management. In specific all the companies from the German part of Switzerland have a methodology for project management, in the French part three quarters of the companies have it and in the Italian part one out of two companies have it.

Picture 6: Standards used

**1.2 If so, about which standard is it inspired?**

The question gives the result that most of the consulted companies do not take methods from an international standard like PMI, IPMA, PRINCE2 or HERMES. In specific the results say that in the French part of Switzerland the methodology is inspired most of the time from IPMA or they do not get inspiration from an international standard, a lack of the companies get inspiration from PMI and none get it from HERMES. In the German part of Switzerland the situation is different from the French part, there most of them take inspiration from HERMES and a lack of them either from PMI or IPMA, none take it from PRINCE2. In the Italian part of Switzerland, the situation is still different: most of the companies do not take inspiration from an international standard and a lack of them either from PMI, IPMA or HERMES, none take it from PRINCE2.

Picture 7: Training for Project Manager

**1.3 Does your company implement structured training for the Project Manager's education?**
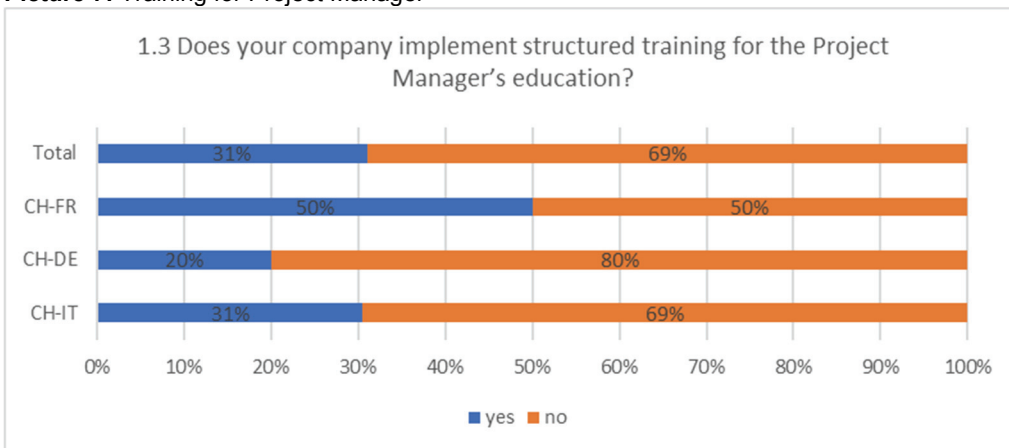
The question gives the result that most of the consulted companies do not implement structured training for Project Managers. The worst situation is registered in the German part of Switzerland, then the situation is getting better in the Italian part but there are still a lack of companies who do it. In the French part of Switzerland one company out of two companies implement structured training for Project Manager's education.

Picture 8: Advantage in certified Project Manager

1.4 In your Company, if a certified project manager exist, it is valued as plus?
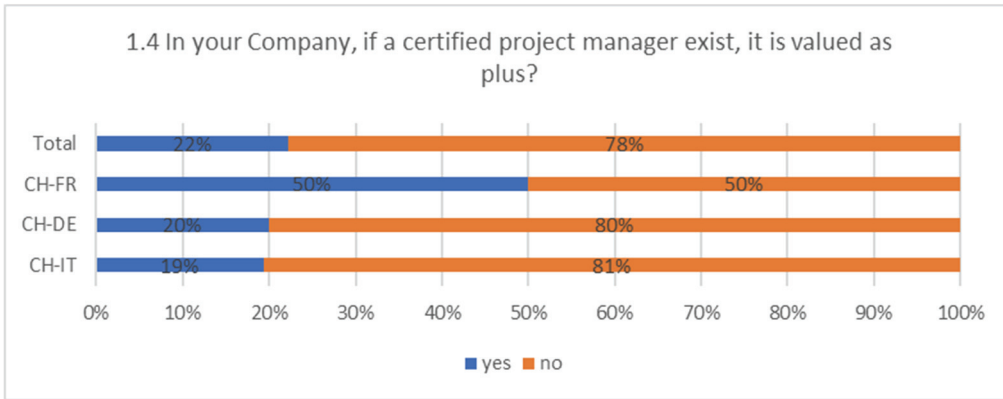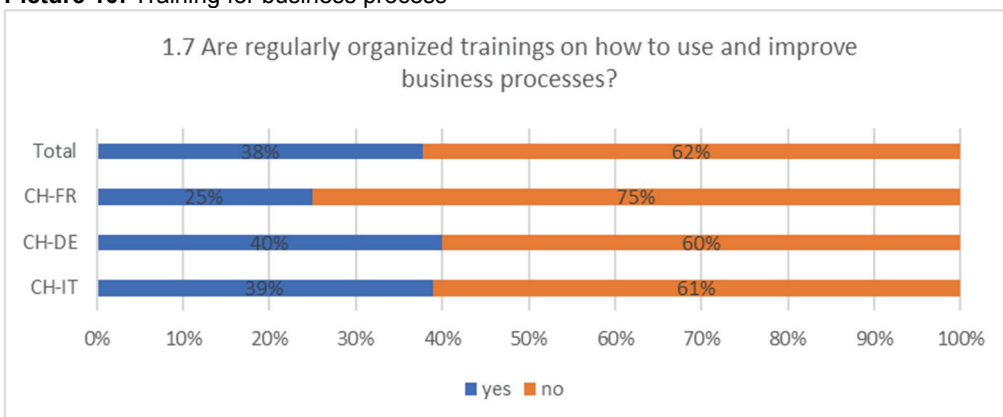
The question gives the result that most of the consulted companies do not valuate a certificated Project Manager as a plus. In specific in the French part one company out of two companies find a certificated Project Manager as a plus. In the German and Italian part the situation is similar and only a lack of companies find a certificated Project Manager as a plus.

Picture 9: Templates for PM

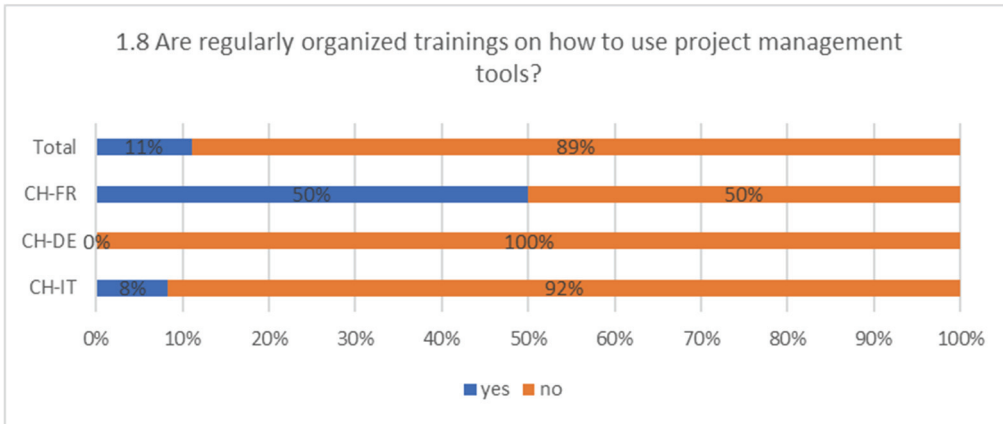1.6 Are templates provided for the project management?
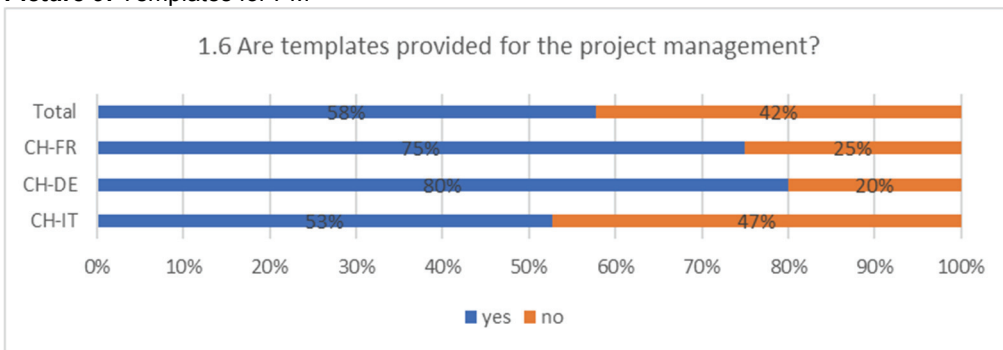
The question gives the result that the major part of the consulted companies provides templates for the project management. In specific in the German and French part only a lack of companies do not provide templates for project management, in the Italian part more or less one company out of two companies provide templates for project management.

Picture 10: Training for business process

1.7 Are regularly organized trainings on how to use and improve business processes?
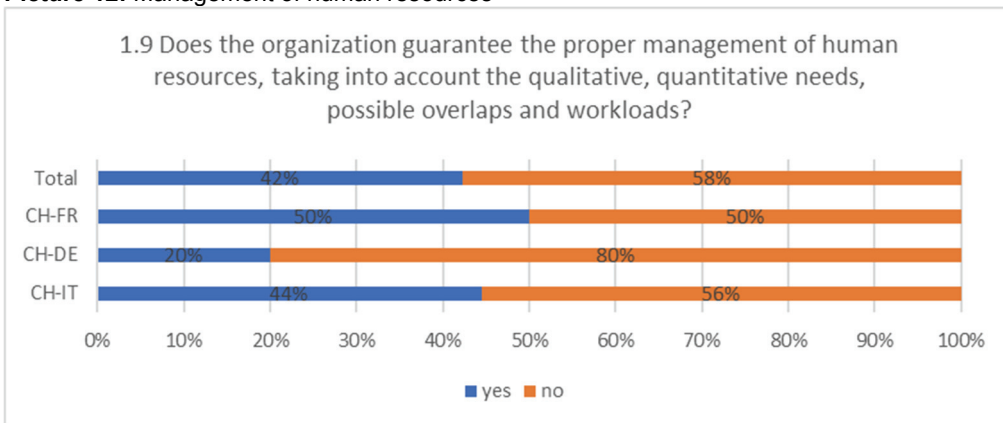
The question gives the result that the major part of the consulted companies do not regularly organize training on how to use and improve business processes. In specific in the German and Italian part the results are similar: most of the companies do not regularly organize training. The results getting worst in the French part where only one quarter of the consulted companies regularly organize training on how to use and improve business processes.

Picture 11: Trainings for PM tools

1.8 Are regularly organized trainings on how to use project management tools?

The question gives the result that only a lack of the consulted companies regularly organize training on how to use project management tools. The worst situation is registered in the German part and in the French part of Switzerland one company out of two companies regularly organize training on how to use project management tools.

Picture 12: Management of human resources

1.9 Does the organization guarantee the proper management of human resources, taking into account the qualitative, quantitative needs, possible overlaps and workloads?

The question gives the result that the major part of the consulted companies guarantee the proper management of human resources. In specific the results say that the situation in the French and Italian part of Switzerland is similar and in the German part only a lack of the consulted companies guarantee the proper management of human resources taking into account the qualitative and quantitative needs, the possible overlaps and workloads.
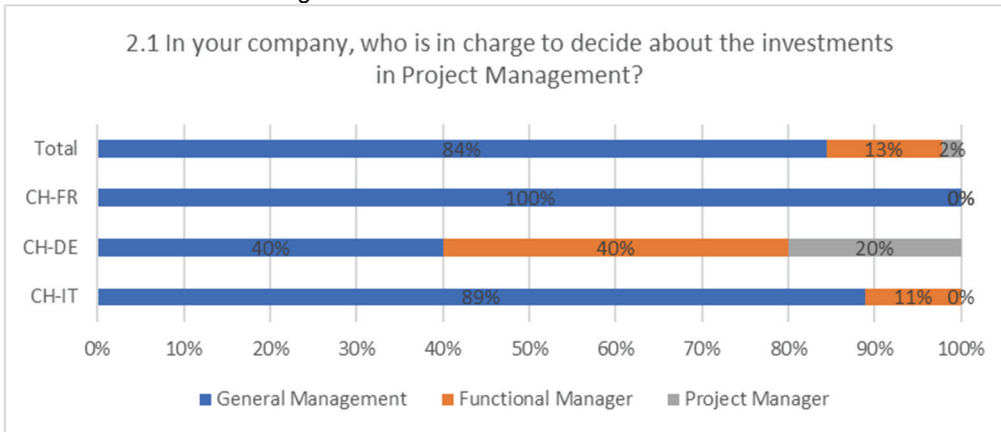
Picture 13: Management of material resources

1.10 Does the organization guarantee effective management of material resources (for example, through databases, matrices)?
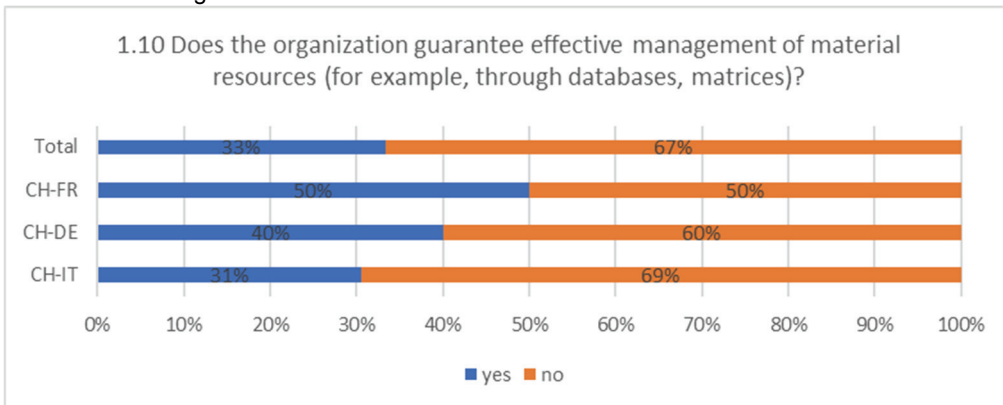
The question gives the result that the major part of the consulted companies do not guarantee effective management of material resources. In specific in the German and Italian part the situation is similar: most of the companies do not guarantee effective management of material resources. In the French part the results
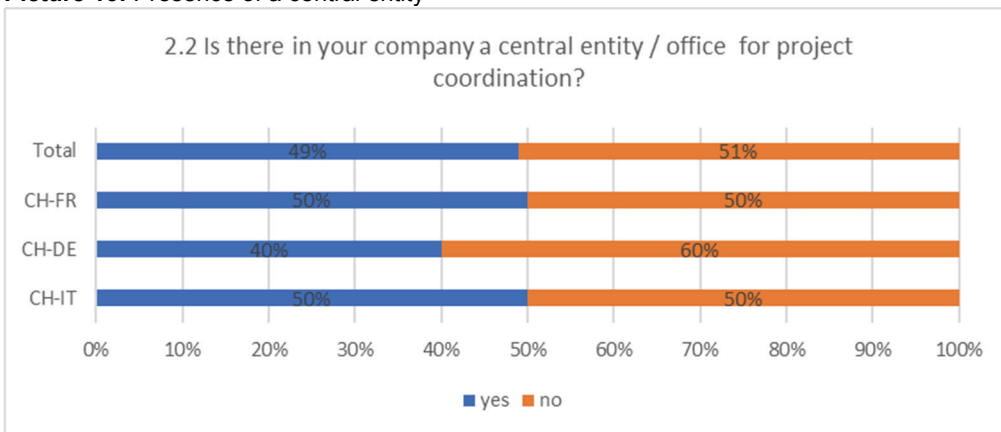
are getting better where one company out of two companies guarantee effective management of material resources.

Picture 14: Position in charge for investments

2.1 In your company, who is in charge to decide about the investments in Project Management?

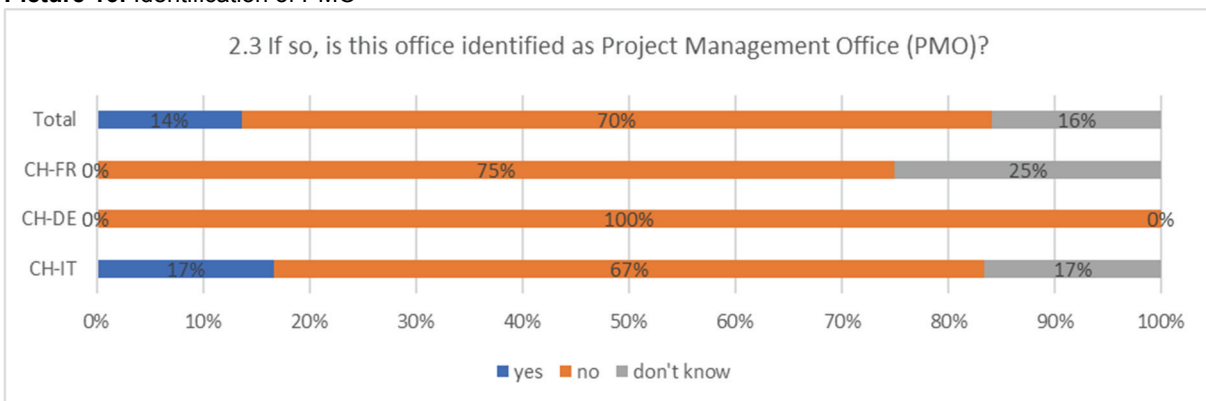|	General Management	Functional Manager	Project Manager
Total	84%	13%	2%
CH-FR	100%	0%	
CH-DE	40%	40%	20%
CH-IT	89%	11%	0%

The question gives the result that in almost all the consulted companies is the General Management the one who decide about the investments in Project Management. Only in the German part of Switzerland a lack of companies give this task to the Project Managers and around one company out of two companies give this task either to General Management or to Functional Managers.

Picture 15: Presence of a central entity

2.2 Is there in your company a central entity / office for project coordination?

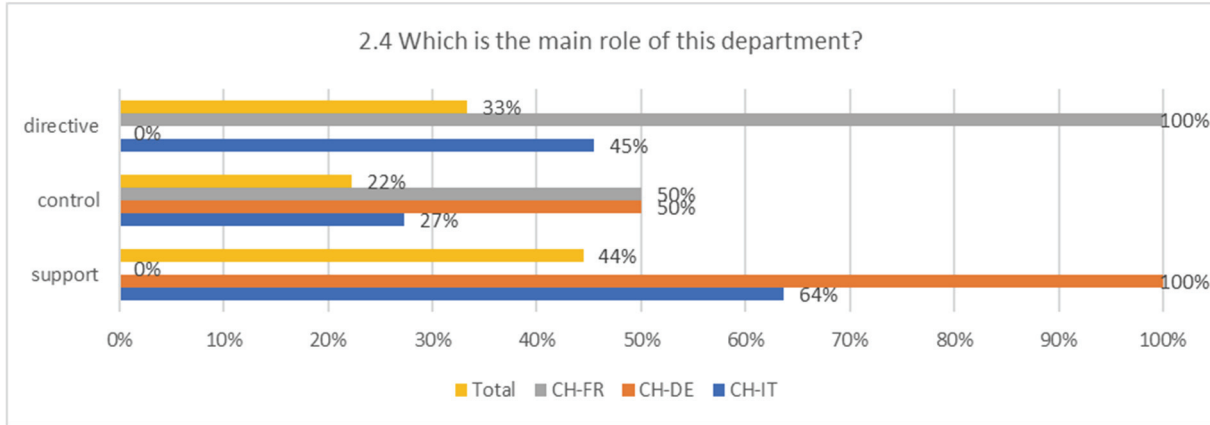|	yes	no
Total	49%	51%
CH-FR	50%	50%
CH-DE	40%	60%
CH-IT	50%	50%

The question gives the result that one company out of two consulted companies have a central office for project coordination. In specific the data give that this result is quite similar in every part of the country.

Picture 16: Identification of PMO

2.3 If so, is this office identified as Project Management Office (PMO)?

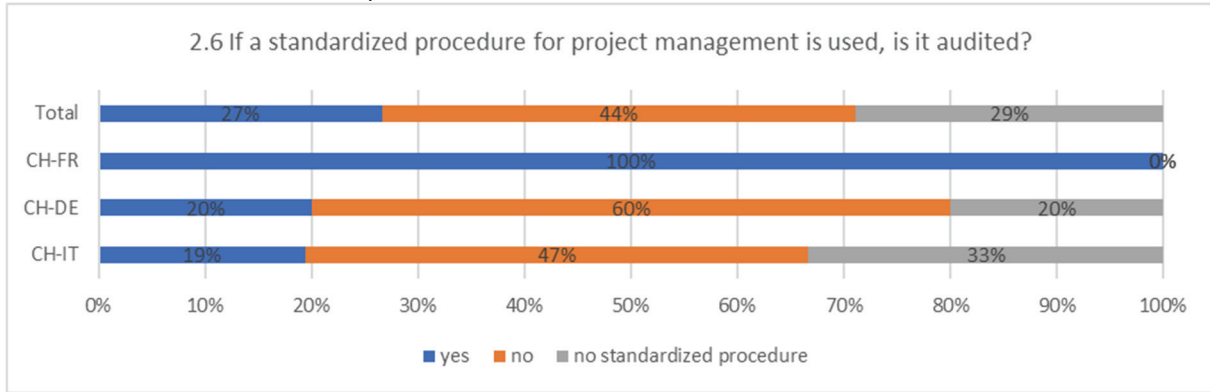|	yes	no	don't know
Total	14%	70%	16%
CH-FR	0%	75%	25%
CH-DE	0%	100%	0%
CH-IT	17%	67%	17%

The question gives the result that even if there is a central entity for project coordination this office is not identified as PMO. Only a lack part of the consulted companies in the Italian part of Switzerland identified this central office as PMO.

Picture 17: Main role of PMO

2.4 Which is the main role of this department?

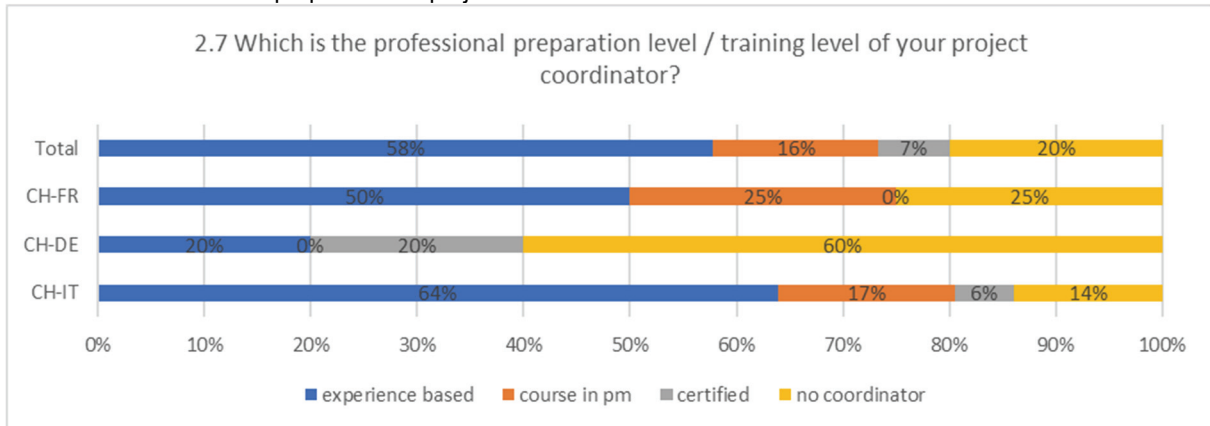|	Total	CH-FR	CH-DE	CH-IT
directive	33%	100%	0%	45%
control	22%	50% 50%	50%	27%
support	44%	50%	100%	64% 0%

The question gives the result that the main role of this department is to support the management but there is also one third of the companies which is using this office as directive for control and project management, a lack part of the consulted companies use this office for controlling and check the guidelines of the projects.

Picture 18: Audited standardized procedures

2.6 If a standardized procedure for project management is used, is it audited?

	yes	no	no standardized procedure
Total	27%	44%	29%
CH-FR	100%		0%
CH-DE	20%	60%	20%
CH-IT	19%	47%	33%

The question gives the result that one of third of the consulted companies do not have a standardized procedure, for most of the rest of the consulted companies if a standardized procedure exist is not audited. In specific only in the German part of Switzerland when a standardized procedure exist it is audited.
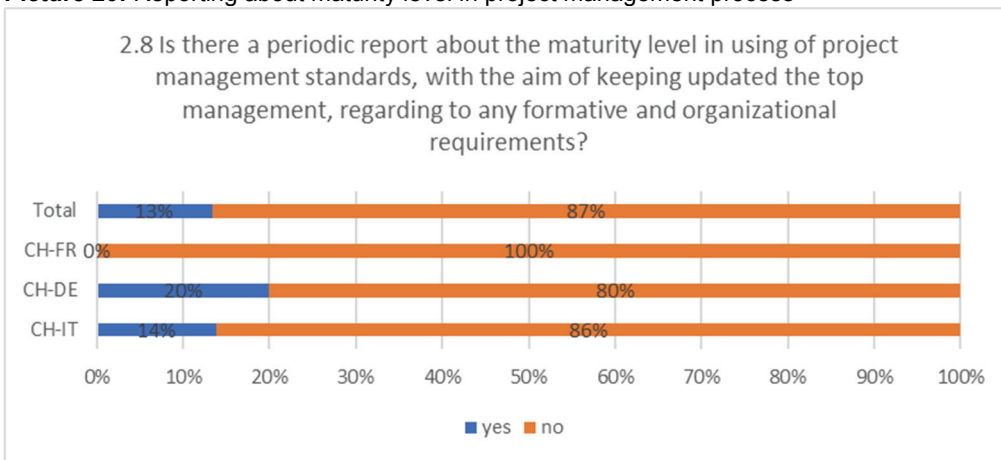
Picture 19: Professional preparation of project coordinator

2.7 Which is the professional preparation level / training level of your project coordinator?

	experience based	course in pm	certified	no coordinator
Total	58%	16%	7%	20%
CH-FR	50%	25%	0%	25%
CH-DE	20%	0%	20%	60%
CH-IT	64%	17%	6%	14%

The question gives the result that the education of most of the project coordinator is based on experience. Only a lack of the consulted companies have project coordinator either educated with courses in project management or there is no project coordinator, only a small percentage is certified. In specific the question gives also different situations related to the different parts of Switzerland. In the French part half of the consulted companies have project coordinator based on experience and the rest are either based on courses in project management or there is no project coordinator. In the German part most of the results say that there

is no project coordinator and rest of the results give that the project coordinator are educated either with experience or certified. In the Italian part most of the project coordinator are educated based on experience and only a small percentage are certified.

Picture 20: Reporting about maturity level in project management process

2.8 Is there a periodic report about the maturity level in using of project management standards, with the aim of keeping updated the top management, regarding to any formative and organizational requirements?
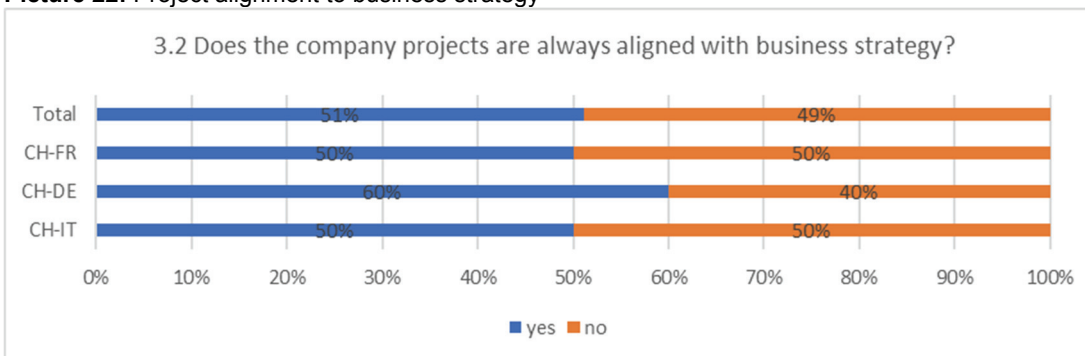
The question gives the result that most of the consulted companies do not have a periodic report about the maturity level in using of project management standards, with the aim of keeping updated the top management, regarding to any formative and organizational requirements. However the French part does not have it at all. Instead the German and Italian part have around the same percentage of a periodic report.

Picture 21: Clear communication of business strategy

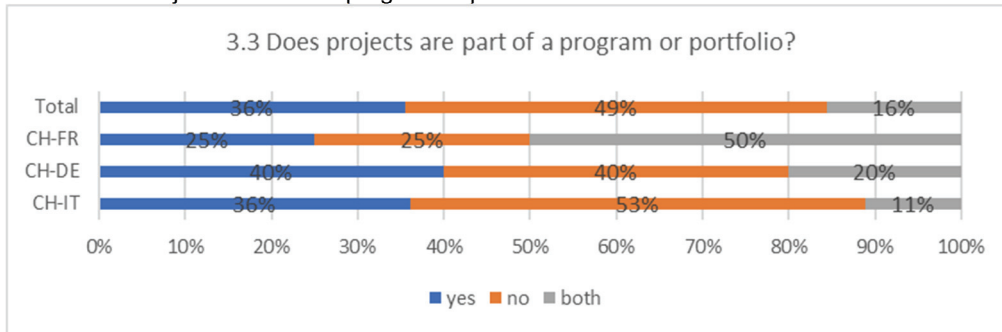3.1 Is there a clear and shared business strategy?
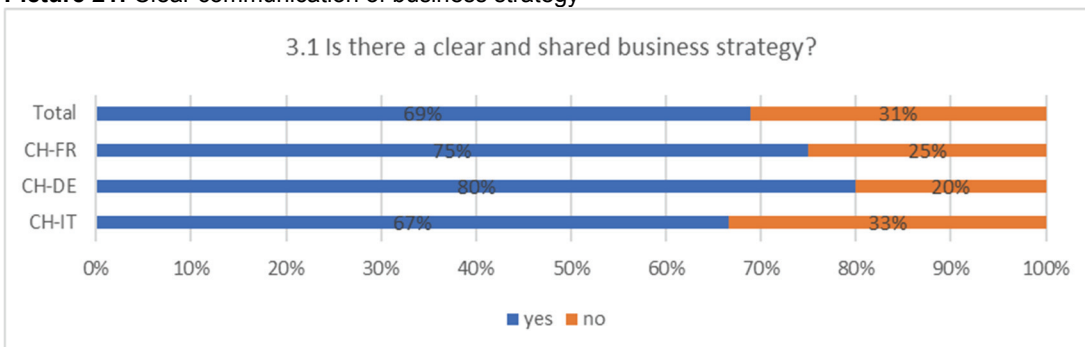
The question gives the result that most of the consulted companies have a clear and shared business strategy. In specific the German part has the highest rate for a clear and shared business strategy. Despite the Italian part that has the lowest rate of a clear and shared business strategy.

Picture 22: Project alignment to business strategy

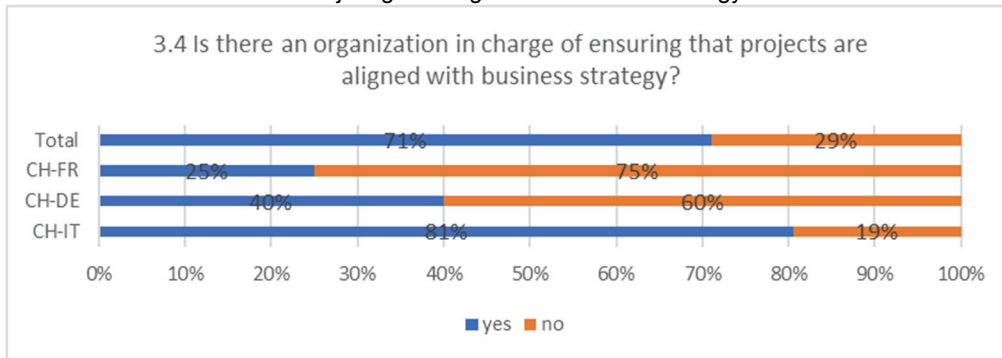3.2 Does the company projects are always aligned with business strategy?

The question gives the result that half of the consulted companies have their projects always aligned with the business strategy. In the French and Italian part both have the same results; in the German part had a tendency of improvement compares to the other parts of Switzerland.

Picture 23: Project affiliation to program or portfolio

3.3 Does projects are part of a program or portfolio?

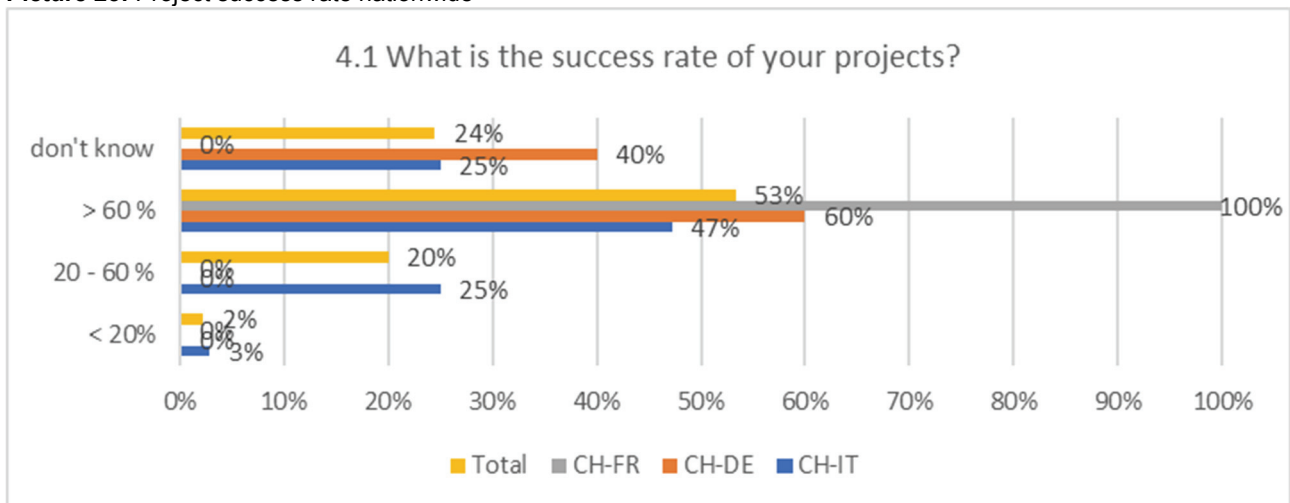|	yes	no	both
Total	36%	49%	16%
CH-FR	25%	25%	50%
CH-DE	40%	40%	20%
CH-IT	36%	53%	11%

The question gives the result that only one third of the consulted companies have a program or a portfolio which their projects are part of. Only a little part of the consulted companies has both. In the French part the 50% of the companies' projects are a part of a program and portfolio, instead in the Italian part most of the consulted companies' projects are not part of a program and a portfolio.

Picture 24: Surveillance of Project goals aligned to business strategy

3.4 Is there an organization in charge of ensuring that projects are aligned with business strategy?

|	yes	no
Total	71%	29%
CH-FR	25%	75%
CH-DE	40%	60%
CH-IT	81%	19%

The question gives the result that most of the consulted companies have an organization that is in charge of ensuring that the projects are aligned with the business strategy. Especially in the Italian part, where the most of the consulted companies have an organization that is in charge. Instead in the French part only one quarter has an organization that is in charge to ensure that the projects are aligned with the business strategy.

Picture 25: Project success rate nationwide

4.1 What is the success rate of your projects?

|	Total	CH-FR	CH-DE	CH-IT
don't know	24%	0%	40%	25%
> 60 %	53%	100%	60%	47%
20 - 60 %	20%	0%	0%	25%
< 20 %	2%	0%	0%	3%

The question gives the result that most of the consulted companies have a success rate of 53%. In the French part, all of the consulted companies have a success rate of 60% or more. In the German part, there is a percentage of 60% that has a success rate of 60% and more. In the Italian part only 47% stated, that they have a success rate of 60% or more.

Picture 26: Success factors in the companies

4.2 Within your organization, a project is defined as successful if:
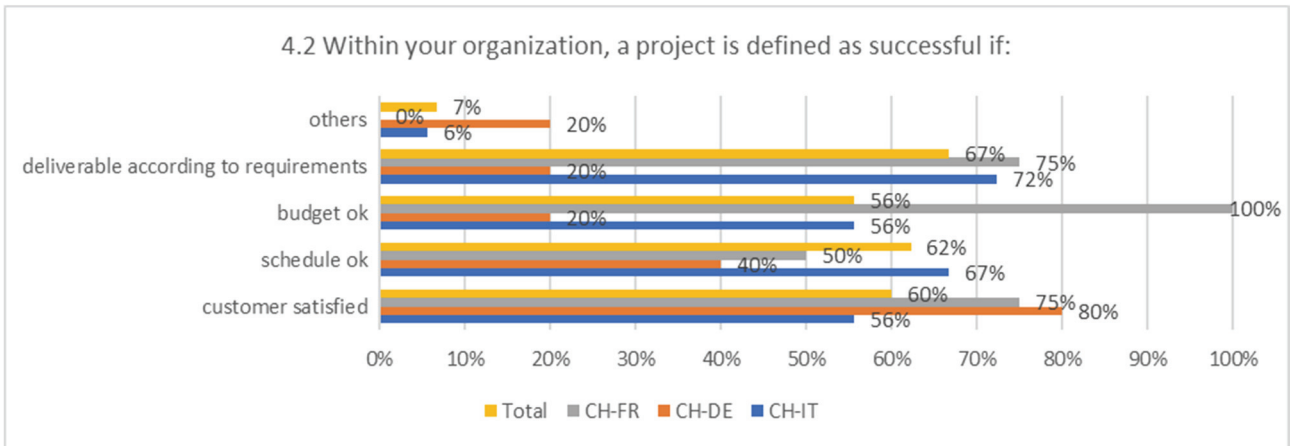
The question gives the result that most of the consulted companies have deliverable according requirements as a definition if a project is defined successfully. Not only customer satisfaction but also schedule are almost equal important definitions for success. In the French part the budget is the most important index. Instead, a project is successful, in the German part because of the customers' satisfaction and in the Italian part because of the deliverable according to the requirements.

Picture 27: Unfulfilled project factors

4.3 Which of the alternatives proposed in question 4.2 are mostly unsatisfied?
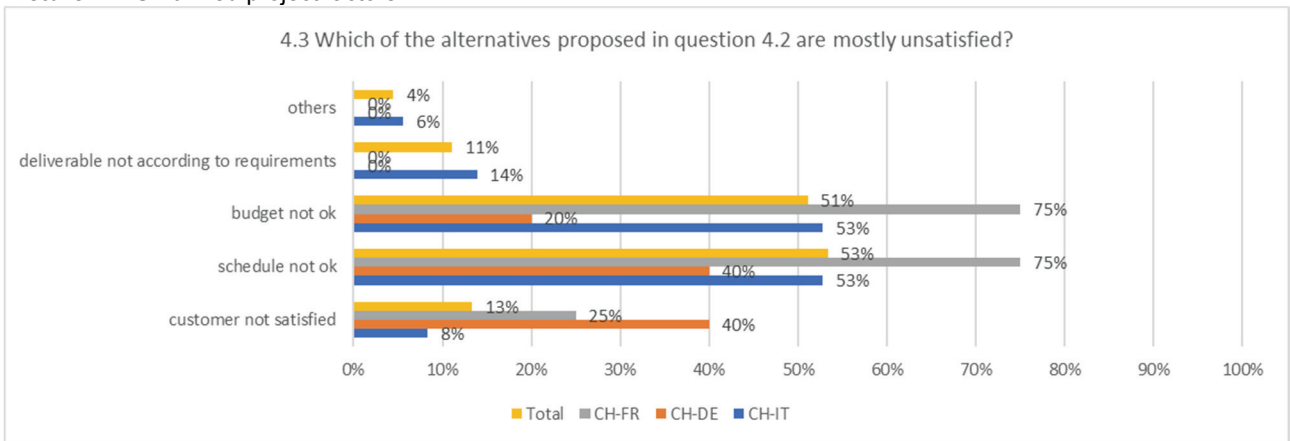
The question gives the result that most of the consulted companies have the schedule as the most unsatisfied issue that defined a project. With almost the same percentage is the budget issue, that makes a project unsatisfied. In the French and Italian part these two issues have the same percentage. On the other hand, in the German part the customer satisfaction and the schedule issue have the same percentage.

5. CONCLUSIONS

The collected data have finally been evaluated all together in order to have a summary overview of the connection between project management methodology and project success. It has been clearly highlighted that a lack of PM culture might show incongruent results between the respondents influencing an objective data interpretation.

The first area of survey confirms the above mentioned conclusions; showing that the interviewed companies are using customized standard without any reference to international recognized methodologies. There are no interests also into training for project manager, tools and process improvement and a lack of interest in certified personnel.

The management of projects is driven by general management and assisted by not well defined central entity / office for project coordination usually not defined as PMO and having mainly a supportive role. Usually the project coordinator is educated based on experience.

There is interest in having a clear shared business strategy between the departments with an organization in charged for the alignment between projects and business strategy, but this projects are not always aligned with the business strategy because of the lack of PMO as well as project affiliation to programs and portfolio.

Finally, we focused on the analysis of the data related to the implementation of a PMO, cross-checking them with project success rate as shown below.
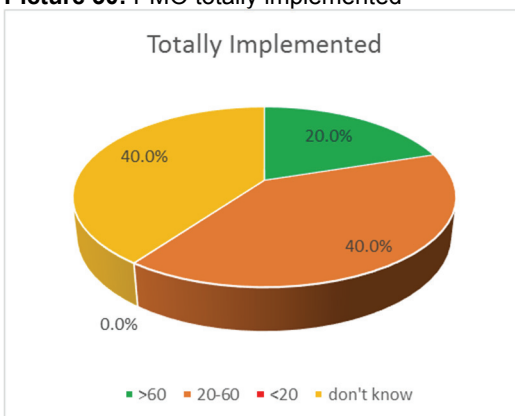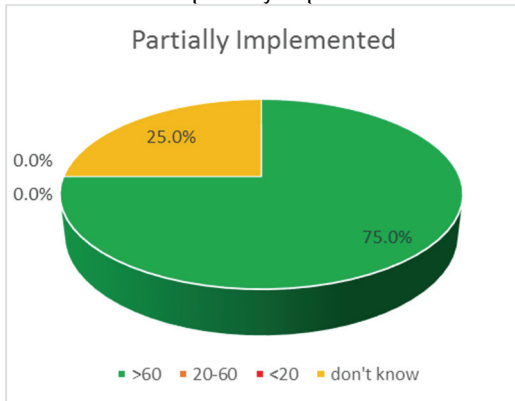
Picture 28: PMO totally unknown
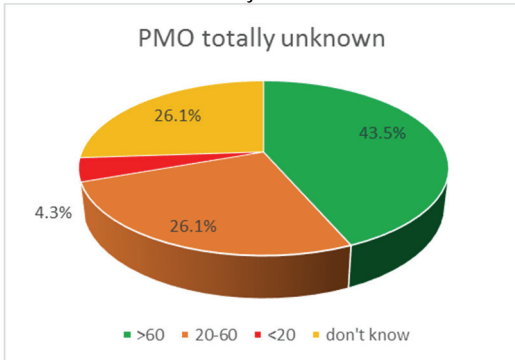
Picture 29: PMO with no name
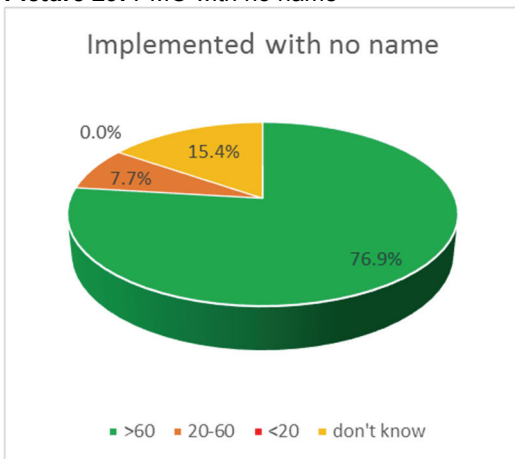
Picture 30: PMO totally implemented

Picture 31: PMO partially implemented

From the displayed pictures we can see that a lack of project management culture gives an overestimation of the performances. Since the criteria for project success is not well defined, the success is only related to the accordance of the deliverable to the client's requirements.

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