Positive Psychology in Information Technology Project Management:
The Case of Bad News Reporting

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ABSTRACT

This paper is an initial study on the impact of positive psychology on IT project management. Prior studies have found that High Psychological Positive Capital (PsyCap) of individuals is positively correlated with their work satisfaction and higher performance. PsyCap comprises individual's positive capacities of optimism, hope, resilience and efficacy. Drawing from Beck's cognitive theory, the authors hypothesized that High PsyCap PMs, when required to report bad news to a client, are inclined to consider the project-oriented reasons rather than the personal-oriented ones. As a result, they are more willing to report bad news compared to Low PsyCap PMs. A questionnaire consisting of four cases of bad news in IT projects, together with PsyCap tests, was distributed to professional communities on the internet. Data was collected from 42 respondents. The results of the statistical analysis have shown some support for our hypotheses. The research encourages more research on PsyCap contribution on various aspects of project performance and success. Such research may also have practical implications for PM recruiting and training.

Keywords: Information Technology, Mum Effect, Positive Psychology, Project Management, Psychological Positive Capital (PsyCap)

INTRODUCTION

Communicating accurate and fair status assessments to the customer is crucial to IT project success (Tan, Smith, Keil & Montealegre, 2003). However the "Mum Effect", that is, the reluctance to report bad news about a troubled project, may disrupt this communication (Smith, Keil, & DePledge, 2001). Without this crucial information the customer may make the wrong decision about continuing or abandoning a project. The reasons for optimistic and biased reporting by Project Managers (hereafter "PM"), and the "mum effect", have been explored by

Snow Keil, and Wallace (2007). In addition, it has been suggested that various factors affect the willingness to report bad news (e.g. Keil, Smith, Pawlowski, & Jin, 2004; Park, Im, & Keil, 2008). However, these were factors related to the project and the nature of the report, while the role of the PM's personality has hardly been studied.

In the last decade the positive psychology movement has emerged. This term refers to studying the positive psychological traits of human beings and nurturing them in order to make life more fulfilling (Seligman, 2002). Positive psychology has been found to correlate with success in various aspects of personal life, including educational and athletic achievements, as well as improvement in health (Snyder, 2000; Snyder 2002). Luthans, (2002) has suggested that the level of confidence, optimism, hope, and resilience of employees, be viewed as organizational Psychological Positive Capital (PsyCap), that can be measured and developed to achieve a competitive advantage. Organizational research has accumulated evidence of PsyCap correlation with better leadership and productivity in the workplace (e.g. Luthans, Avolio, Avey & Norman, 2007; Avey, Nimnicht & Pigeon, 2010).

Motivated by PsyCap's research results, the purpose of this research was to extend the study of positive psychology to the context of project management. More specifically, this article intends to empirically examine whether a PM's PsyCap level affects his or her's willingness to report bad news and the PM's motivation for withholding bad news.

LITERATURE REVIEW

Reporting Bad News

The code of ethics of the Project Management Institute (PMI), forbids the project manager from misleading, erroneous, or partial reporting (PMI, 2005). However, empirical studies provide ample evidence that PMs tend to "gloss over" the reality in their reports. This may include exaggerated estimation of completion rates – the "ninety percent" syndrome (Abdel-Hamid, 1988), the reluctance to report bad news about a troubled project - the "Mum Effect" (Smith et al., 2001), and biased, generally optimistic, status reporting in more than 60% of the reports examined (Snow et al., 2007). The traditional view sees such behavior as a moral hazard (Tuttle, Harrell & Harrison, 1997). Furthermore, it has been recognized as a key contributor to software project failure (Tan et al., 2003).

To date, bad news reporting has received only limited attention from IS researchers (Park et al., 2008). One of the questions that are raised in the studies is what are the factors that may affect the PM's decision to report or withhold bad news? So far a relatively small number of factors have been investigated. Empirical studies have focused on the impact of organizational factors such as organizational climate and information asymmetry (Keil et al., 2004), or project aspects such as level of risk (Snow et al., 2007), time urgency, fault responsibility (Park et al., 2008), the level of impact associated with the outcome of no reporting, and the level of observed behavioral wrongdoing associated with the project (Smith et al., 2001). Recently, Keil, Tiwana, Sainsbury and Sneha (2010) have found relationships between PMs' reporting intentions and various social and organizational factors. They have also suggested that the PMs' perceived "benefit-to-cost differential" mediates this relationship. Nevertheless, little attention has been given in these studies to the question of PMs personality factors.

The Project Manager's Personality

The traditional view that PM success depends solely on the correct use of tools and techniques, disregarding personality, was common until the last decade. However drawing from organizational leadership theory, it has been found that the success of a project is significantly correlated with specific leadership styles (e.g. Prabhakar, 2005; Thamhain, 2004), and leadership competences (Dainty, Cheng, & Moore, 2004). Furthermore, recent studies of Malach-Pines,

Dvir and Sadeh (2009), and Muller and Turner (2007), have both shown that in order to ensure success there must be a fit between the PM's leadership profile and the type of project. Since there are no agreed upon leadership personality constructs, Malach-Pines et al. (2009) selected "functional-oriented" personality traits, such as intuition, perceiving, openness to experience, risk taking etc. Whereas, and Muller and Turner (2007), adopted Dulewicz and Higgs' (2005), classification of 15 competences into three dimensions, that is IQ (intellectual), EQ (Emotional), and MQ (Managerial). However, Positive Psychology capacities have hardly been considered in the leadership research.

Positive Psychology

Positive Psychology is a term which was coined by Martin Seligman who challenged the psychology profession to shift the focus away from problems and failures in human functioning into what is normal and positive human behavior. In other words, focus on people's strengths rather than their weaknesses. Although Positive Psychology is sometimes attributed to the populist and intuitive "spiritual" ideals, research has found empirical evidence that it has an impact on educational and athletic achievements as well as improvement in health. (Snyder, 2000; Snyder, 2002). It is not surprising that Positive Psychology has recently begun to receive attention in organizational literature. Luthans (2002), emphasizes the need to identify state-like psychological capacities that can not only be validly measured, but also be open to development and performance management. Luthans and Youssef (2004), define the notion of PsyCap (Positive Psychology Capital), as an additional organization asset, which today's leaders and their associates can develop for both individual and organizational performance and gain competitive advantage. PsyCap is "an individual's positive psychological state of development that is characterized by: (1) having confidence (self efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future;

(3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans, Youssef & Avolio, 2007, p. 3).

Ample evidence has been accumulated that PsyCap can indeed affect business performance. Seligman and Schulman (1986), in their seminal work on Metropolitan Insurance, found that insurance agents with an optimistic style outperformed their counterparts in sales by 8% in the first year and 31% in the second year. These agents also stayed in the company for a longer period. Peterson and Luthans (2003) have found better organizational performance among leaders with high hope capacity. Avey, Wernsing and Luthans (2008), found a correlation between employees PsyCap and their feelings when they undergo an organizational change. More recent studies found that leader rated performance and employee work satisfaction are positively correlated to their PsyCap (e.g. Luthans, Avolio, Avey, & Norman, 2007; Avey, Nimnicht & Pigeon, 2010). Moreover, Peterson, Luthans, Avolio, Walumbwa and Zhang (2011), in a longitudinal study, found that employees' PsyCap score may change over time and that the PsyCap change may subsequently change employee performance.

Note that the positive psychology concept differs from leadership theory. While traditional leadership theory focuses on practical competencies for PMs which need to "fit" the project types, positive psychology emphasizes PMs positive attitude capacities.

Theory and Hypotheses

The "whistle blower" theory (Dozier & Miceli, 1985), regarding the decision process made by a by-stander whether to report on a problem or not, has been adopted as the main framework for bad-news reporting in IT projects (Smith et al., 2001, Smith & Keil, 2003; Keil, Smith, Pawlowski & Jin, 2004; Park et al. 2008). However, when focusing on the PM, who is the primary individual responsible for a project and clearly not an accidental by-stander, using this

theory is inappropriate. We therefore suggest an alternative theory, drawn from the Cognitive Psychology framework to behavior (Alford & Beck, 1997).

When facing a stressful event, an individual has alternative coping styles. One alternative is task oriented, which focuses the individual's efforts on solving the problem. The other alternative is the avoidance-oriented coping style, which seeks to avoid the stressful event (Endler & Parker, 1990). Since confronting the client with bad news may be considered a stressful event, some PMs may cope with it by avoidance, i.e. not reporting the bad news.

However, positive thinking in terms of confidence, optimism and hope, may influence the level of stress involved and hence the consequences of avoidance. According to Positive Psychology (Seligman, 2002), positive thinking individuals tend to explain good events to themselves in terms of permanent causes, while bad events are explained in terms of temporary causes and external circumstances but not attributed to the self. Once they succeed they will try even harder the next time. In contrast, negative thinking people are characterized with high anxiety and danger oriented beliefs (Alford & Beck, 1997). They tend to make catastrophic interpretations of events, attribute failure to themselves and give temporary reasons for good events.

Cognitive theory, which positive psychology consists of, argues that the processing of external events is always biased by the internal subjective perception of the individual called "schema" and therefore distorts the construction of his or her experience (Alford & Beck, 1997). Thus, positive thinking individuals, using their positive schema, will experience events less stressfully than a negative thinking counterpart, and hence their use of avoidance coping style would be lower.

According to this theory, we expect that since the positive thinking PMs are predisposed to attribute bad news to temporary external events and not to their own failure, it is expected that compared to the low positive thinking PMs, their considerations regarding withholding bad news are more project oriented and less personal oriented. This may help them to subjectively experience a project's bad news reporting as less stressful and as a result positive thinking PMs do not feel the need to cope with this event or to use avoidance. Therefore they have less of a tendency to withhold bad news. This theory is illustrated in Figure 1.

Accordingly, our Hypothesis can be summarized as following:

Hypothesis 1: *While High PsyCap PMs focus on project-oriented considerations for withholding bad news to clients, Low PsyCap PMs focus on personal-oriented considerations.*

Hypothesis 2: *High PsyCap PMs are less inclined to withhold bad news from customers than Low PsyCap PMs.*

METHOD

Data Collection

A set of four cases was developed. Each case presents a situation in which a PM is confronted with a specific external problem ("bad news") during the project life-cycle, but he decides to withhold the report on the problem to the client:

Case 1: In the beginning of the project, while assuming responsibility, the PM discovers that the time set for the completion of the project is not realistic and a substantial extension will be required.

Case 2: The PM discovers that, due to unexpected technological constraints, the implementation of a major system requirement will be consuming a lot more resources or may be even impossible to implement.

Case 3: The PM discovers a major technological issue, which may postpone the completion of the current stage of the project, and possibly may postpone the entire project's completion.

Case 4: During the project, the PM discovers that due to the client's organizational

Figure 1. The cognitive psychology theory: Effect of positive psychology on bad news reporting
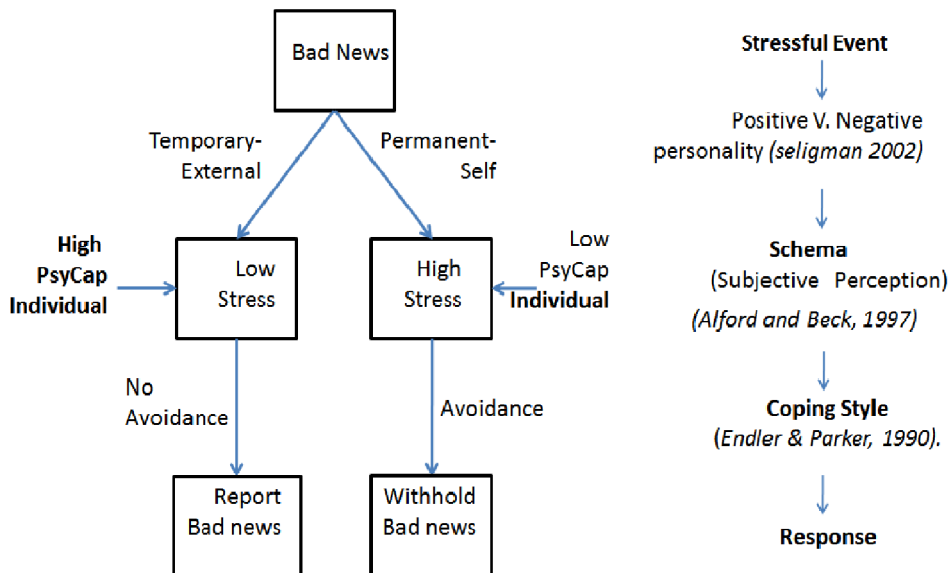
change the developed system will be unusable by the client. We developed a questionnaire in which we asked the subjects to assess for each case, how common it is for a PM to withhold the bad news in each case ; using a Likert scale from 1 – very rare to 5- very common. This questionnaire is shown in Appendix 1 below. In addition, we have listed possible motivations for PM reluctance to report bad news, which were adopted from Snow et al., (2007). Subjects were asked to select the five most relevant reasons on their questionnaire. *Judges were asked to classify the reasons for failing to report bad news to two groups:*

1. **Project Oriented Reasons:** Reasons that focus on promoting the project success, such as "I wanted to keep the high morale of the project members".
2. **Personally Oriented Reasons:** Reasons that focus on the well being of the PM. For example: "I do not want to be considered a bad person". Table 1 presents the classification of the reasons as decided by the judges.

In addition, we included the short PsyCap self-test (Luthans, Youssef & Avolio, 2007), which scores the respondents' PsyCap based on the four capacities it contains: self efficacy, hope, optimism, and resilience.

Empirical studies of when to expect a PM to report on possible unethical behaviors, show the response can be affected by the "social desirability bias" (Sudman & Bradburn, 1974), which is the tendency of a subject to avoid reporting on behavior that is socially perceived as "bad" . To eliminate social desirability bias, we have applied the indirect questioning method to our cases (Fisher, 1993; Snow et al., 2007), and rephrased the questions so that they referred to the general behavior of PMs rather the respondent's own behavior.

Subjects

The questionnaire was published on the on-line survey web site "Zoomerang". The subjects were recruited by a request for participation that we electronically distributed to two relevant professional communities: (1) Members of the Project Management Institute (PMI) - the Israeli

chapter and (2) Subscribers to an electronic IT professional newsletter. Due to the delicate subject of the research, we intentionally refrained from recruiting subjects through the workplace.

Overall, the number of respondents was 42, 36 males (85%) and 6 females (15%). The average age of the respondents was 43 and their average professional experience as PM was 8 years.

RESULTS

Reasons for Withholding Bad News

The results of the study regarding the motivation of PMs for withholding bad news, based on the accumulated response of all four cases, show there are four major reasons, which received similar selection rates by percentage: (1) the need to assess the effect on the contract, (2) the belief that things will work out, (3) the power to fix the problem, and (4) succumbing to management pressure. Table 1 presents the full rank of reasons by their selection rate.

It is interesting to note that this ranking is somewhat different than found by Snow et al. (2007), which found the number one reason to be fear that management will "shoot the messenger". This reason only ranked fifth in our results.

The reasons were classified by personal-oriented reasons and project-oriented reasons (Table 1). We conducted a test that compared the High PsyCap group against the Low PsyCap group regarding the distribution of the reasons they selected. The results confirm there is a significant difference between the High PsyCap group and the Low PsyCap group. While the first group preferred more project oriented reasons than the latter (61.1% vs. 52.5%) the Low PsyCap group selected more personal oriented reasons (47.5% vs. 38.9.%). Similar differences between the high score and the low score group were consistently found in each of the factors that comprise PsyCap (Table 2).

The findings confirm our first hypothesis; that High PsyCap PMs focus more on the project professional considerations of bad news reporting, while Low PsyCap PMs are more likely to consider the consequences to them. It should

Table 1. Reasons for withholding bad news: Frequency results

#	Reason	Orientation	%
1	Project manager does not want to cause breach of contract	Project	15%
2	Project manager believes that things will work out	Personal	15%
3	Project manager thinks s/he can fix whatever is wrong or that it will all work out in the end	Project	15%
4	Project manager succumbs to management pressure	Personal	15%
5	Project manager believes the client's managers " shoots the messenger" of the bad news	Personal	10%
6	Project manager wants to make him or herself look good	Personal	9%
7	Project manager does not want to let the client down	Project	8%
8	Project Management wants to avoid hearing criticism and reproof	Personal	6%
9	Project manager wants to keep up the project team's morale	Project	5%
10	Project manager does not want to look bad	Personal	2%

Table 2. Reasons for withholding bad news - High PsyCap vs. Low PsyCap

	Personal Oriented Reasons					Professional Oriented Reasons				
	Low		High		Sig	Low		High		Sig
Factor	Mean	*Std. Dev*	Mean	*Std. Dev.*		Mean	*Std. Dev*	Mean	*Std. Dev.*	
PsyCap	61.1%	*0.23*	52.5%	*0.21*	.004***	38.9%	*0.21*	47.5%	*0.21*	.005***
Efficacy	58.2%	*0.24*	54.5%	*0.21*	.069*	41.8%	*0.21*	45.5%	*0.21*	0.183
Hope	58.2%	*0.24*	55.0%	*0.22*	0.259	41.8%	*0.22*	45.0%	*0.20*	0.111
Resiliency	59.3%	*0.24*	53.7%	*0.21*	.097*	40.7%	*0.21*	46.3%	*0.21*	.019**
Optimism	58.5%	*0.23*	50.9%	*0.21*	.022**	41.5%	*0.21*	49.1%	*0.22*	.029**

* p < 0.1
** p < 0.05
*** p < 0.01

be noted that this pattern of being able to be more work focused and less self concerned is the pattern that was found to help High PsyCap people achieve better job performance.

The Frequency of Withholding Bad News

The analysis of the results found that withholding bad news occurs very frequently. On a scale from 1- very unlikely to 5- very likely, the average score was 3.13 (St. Dev = 1.1). These results confirm once again, following Snow et al. (2007), that the "mum effect" in IT projects is a common phenomenon.

We then divided the respondents by their PsyCap test scores into equal size groups of high score and low score, for each of the positive factors. We conducted a t-test to compare the two groups' perceived frequency of withholding bad news. Table 3 presents the results of the comparison. In two of the factors we have found significant differences between the high score and the low score groups. We found that in the Hope factor the perceived frequency of bad news withholding of the high score group is significantly lower than its low score counterpart (3.01 vs. 3.24, p <0.1). The High Optimism group also demonstrated a lower perceived frequency of bad news withholding (2.88 vs. 3.01, p<0.05). Similar results, although

not statistically significant, have been found at overall PsyCap. With the other factors no significant differences were found.

As discussed above in the methodology, the perceived frequency can be interpreted as the respondents own willingness to report bad news. Thus, results may indicate that PMs with high optimism and high hope are more likely to report bad news. These results do not entirely confirm our hypothesis, since the overall PsyCap score was not found as a significant factor. Nevertheless, the significance found with the Optimism and Hope factors provides some support to our hypothesis. We will further discuss the meaning of these results in the discussion section below.

Case Type and Withholding of Bad News

Our study also revealed the type of case affected by the frequency of the withholding of bad news. The highest level of withholding by the respondents was found in case 1 (3.52) while the lowest was case 4 (2.59). The research cases differed from each other in two dimensions. The first dimension was the source of problem. While in cases 1 and 3 the source problem is project dependent (unrealistic time estimation, technological failure), in cases 2 and 4 the source of the problem is client dependent (client requirements and client organizational

Table 3. Perceived frequency of bad news withholding - High PsyCap vs. Low PsyCap

Factor	Low Score		High Score		Sig
	Mean	Std. Dev	Mean	Std. Dev.	
PsyCap	3.19	1.0	3.08	1.2	.264
Efficacy	3.06	1.1	3.25	1.1	.137
Hope	3.24	1.0	3.01	1.2	.096*
Resiliency	3.13	1.1	3.14	1.1	.468
Optimism	3.21	1.1	2.88	1.1	.048**
* p < 0.1 **p < 0.05					

change). The second dimension was the project stage. While in cases 1 and 2 the problem may occur in the early stages of the projects (initialization and design), in cases 3 and 4 the problem occurred during more advanced stages (development and implementation).

We performed an Anova analysis of the observed withholding of bad news. The results of the analysis suggest that PMs are more likely to withhold project oriented and early stage problems, rather than client oriented and late stage problems (Table 4). One possible explanation for these results may be the effect of fault responsibility and time urgency on the "mum effect" that was explored by Park et al. (2008). The source of the problem and the project stages in our study can be interpreted in terms of fault responsibility and time urgency respectively. Since we used different case settings, these results support and expand the findings in Park

et al. (2008). In this paper we focused on positive psychology, therefore further discussion of these findings is beyond our scope.

DISCUSSION

Summary

Good project management requires not only high technical skills, but also appropriate personal leadership qualities. This paper suggests that, in addition, the ability to think positively may be a desired personality trait. We have demonstrated the effect of positive thinking in the context of bad news reporting, an issue which proved to have a substantial impact on the success or failure of IT projects. One interesting finding was that in a situation of bad news, High PsyCap PMs are more concerned with project and professional issues rather than

Table 4. Bad news withholding- by case

		Project Stage	
		Early	Late
Problem Source	Project	*Case1:* 3.52	*Case3* 3.29
	Client	*Case2:* 3.14	*Case 4* 2.57
Source		Sum of Squares	F	Sig.
Problem Source (1)		12.595	11.077	.001
Project Stage (2)		6.881	6.052	.015
Interaction (1)*(2)		1.167	1.026	.313

personal consequences such as "getting the heat" from the client. This finding matches the pattern of other studies in positive psychology, and it is part of the explanation of its affect on personal success. For example: Avey, Wernsing & Luthans (2008), noted that; "PsyCap can create positive expectancies, trigger the creation of goals with an approach orientation (rather than avoidance or complacency), and motivate self-regulatory mechanisms that increase the probability of perseverance and success in a particular situation".

However, the hypothesis that a higher PsyCap increases a PM's tendency to report bad news, received support with respect to the personality traits of optimism and hope. Nevertheless, the effect of the traits of efficacy and resilience has not been found to be significant. One possible explanation is that a High PsyCap might also have a counter effect. High self confidence leads a PM to believe that he or she will successfully get the project back on track without the customer discovering the problem, thus, increasing a tendency to withhold bad news. Overall, the findings show partial support for this conclusion.

Limitations

We are aware there are some limitations to our research. First, as a pioneering work in Positive Psychology in the context of work projects, the results should be viewed with some caution. Second, the results did not fully support our hypothesis. Third, since the questionnaire we used contained an indirect questioning format in order to overcome "social desirability bias" there was no assurance that the PMs responses matched their own wisdom. Fourth, although the respondents were drawn from a professional community, the use of the internet questionnaire and the relative small number of respondents (42) may pose some external validity issues.

Contribution and Implications

The main contribution to Project Management research of our research is an initial attempt to empirically explore Positive Psychology effects in IT project leadership. This work also contributes to the research of the "mum effect", by considering a new dimension of psychological factors on this phenomenon. Also, we have suggested a theory that is grounded in Alford and Beck's (1997) psychological cognitive research, which may encompass psychological aspects other than the social Whistle-Blower theory (Dozier & Miceli, 1985). Finally, our study follows up the prior research in (Park et.al, 2008), which was based on an experiment using student subjects, with regard to the effect of fault responsibility and time urgency factors. We provided some confirmation to this research based on a field study in which the respondents were PMs with at least eight years of experience.

Our research added to the growing and promising evidence of the general organizational Positive Psychology research, and may encourage an avenue of Positive Psychology studies on projects' leadership and teams, that considers the effect on a range of issues including performance, productivity, and risk.

One practical implication of this research is the recognition that the withholding of bad news by PMs is a coping strategy to a stressful situation. Management can reduce the stress involved in reporting bad news by creating an atmosphere of better organizational openness: including refraining from harsh reactions to bad news ("shoot the messenger" syndrome), building partnership work relations between the client and the project manager, and creating an employee performance evaluation system with a balanced and fair perspective etc. By reducing the stress of reporting, PMs communication will be more open and accurate.

Another possible practical future implication of the findings can be on the recruiting and training of project leaders. This paper has suggested that a High PsyCap may be a desired character trait for a project leader in a specific context. If, as has been the case in various other fields, PsyCap will be found to have a positive effect on project outcomes, then when recruiting PMs the desired candidate profile should be defined accordingly. Furthermore, PsyCap skills can be developed. The PsyCap comprises state-like personal capacities, which are context specific and malleable rather than fixed trait

characteristics which represent habitual or programmed responses. PsyCap also cannot be considered as temporary moods and emotions (Avey et al. 2010). Since they are not fixed nor fluctuate, PsyCap capacities may be taught and utilized. There is evidence that relatively short training interventions have also been successfully implemented to develop PsyCap (Luthans, Avey, Avolio, Norman & Combs, 2006; Luthans, Avey & Patera, 2008). As a result, with a broader knowledge of PsyCap's contribution to project success, organizations may recognize the need to develop PsyCap qualities in their PMs and it may become part of their education and training.

CONCLUSION

Two major related conclusions can be drawn from our research: First, when a troubling situation arises on a project, the PsyCap capacities of optimism, hope, efficacy, and resilience drives the PM to be less concerned about his or her personal consequences and be more focused on the project when they consider whether to report or withhold the bad news. Second, high hope and optimism PMs are less inclined to withhold bad news from client management.

Unfortunately the "mum effect" has been found to be widespread in IT projects. The substantial risk that it poses to project success is well documented. Clearly studying and devising ways to decrease its occurrence are needed.

Our research is an initial work on positive psychology in a project context. Its results have added to a growing body of research that demonstrates the advantage of positive psychology in various areas of life in general, and at work specifically, where it becomes Psychological Capital (PsyCap). We hope that these encouraging results will ignite new studies on the effect on projects of leadership and possibly enable the development of PsyCap within PMs and teams to reduce risks, such as the "mum effect", and to increase productivity and success.

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APPENDIX

Project Case Questionnaire

Case 1

A vendor won a new information system development project. After a short negotiation, the contract was signed, and the project began. **The newly assigned project manager** discovered that the timetable agreed upon may be unrealistic after taking into account the scope of the requirements.

Eventually, the **project manager** decided to withhold the information to the client and to continue running the project according to its original agreed upon timetable.

1. How common is this case in reality (Box 1)?

Box 1.

5 Very Common	4 Common	3 Neutral	2 Rare	1 Very Rare

2. Select the 5 most probable reasons for the project manager's decision to withhold the information (Box 2).

Box 2.

Select	Reason
	Project manager believes the client's managers ''shoots the messenger'' of the bad news.
	Project manager wants to make him or herself look good.
	Project manager does not want to let the client down.
	Project Management wants to avoid hearing criticism and reproof.
	Project manager wants to keep up the project team's morale.
	Project manager does not want to look bad.
	Project manager believes that things will work out.
	Project manager thinks s/he can fix whatever is wrong or that it will all work out in the end.
	Project manager succumbs to management pressure.
	Project manager does not want to cause breach of contract.

Case 2

In a fixed price system development project, during the detailed design phase, the project manager has realized that due to technology constraints, some main requirements might be inapplicable or might require excess resources.

　　The project manager has decided, for now, to withhold the information and not to disclose it to the client.

1.　How common is this case in reality (Box 3)?

Box 3.

5 Very Common	4 Common	3 Neutral	2 Rare	1 Very Rare

2.　Select the 5 most probable reasons for the project manager's decision to withhold the information (Presented in Box 4).

Box 4.

Select	Reason
	Project manager believes the client's managers "shoots the messenger" of the bad news.
	Project manager wants to make him or herself look good.
	Project manager does not want to let the client down.
	Project Management wants to avoid hearing criticism and reproof.
	Project manager wants to keep up the project team's morale.
	Project manager does not want to look bad.
	Project manager believes that things will work out.
	Project manager thinks s/he can fix whatever is wrong or that it will all work out in the end.
	Project manager succumbs to management pressure.
	Project manager does not want to cause breach of contract.

Case 3

During the development phase of an information system development project, an unexpectedly serious technological issue has come up. The project manager estimates that the completion time of the current development phase may be delayed and as a result the entire project's completion time may be postponed.

The project manager has decided not to change the project's completion date in the monthly report to the client.

1. How common is this case in reality? (Presented in Box 5).

Box 5.

5 Very Common	4 Common	3 Neutral	2 Rare	1 Very Rare

2. Select the 5 most probable reasons for the project manager's decision to withhold the information (Presented in Box 6).

Box 6.

Select	Reason
	Project manager believes the client's managers ''shoots the messenger'' of the bad news.
	Project manager wants to make him or herself look good.
	Project manager does not want to let the client down.
	Project Management wants to avoid hearing criticism and reproof.
	Project manager wants to keep up the project team's morale.
	Project manager does not want to look bad.
	Project manager believes that things will work out.
	Project manager thinks s/he can fix whatever is wrong or that it will all work out in the end.
	Project manager succumbs to management pressure.
	Project manager does not want to cause breach of contract.

Case 4

In an enterprise system development project, there is currently still a long period before it will be completed, but it is expected to be finished on time. At this point the project manager realizes that due to organizational changes within the client's business, the system might not be relevant anymore to the client's needs and might be abandoned.

The project manager has decided not to bring the issue up and to carry on with the project according to the original plan.

1. How common is the case in reality? (Presented in Box 7)

Box 7.

5 Very Common	4 Common	3 Neutral	2 Rare	1 Very Rare

2. Select the 5 most probable reasons for the project manager's decision to withhold the information (Presented in Box 8).

Box 8.

Select	Reason
	Project manager believes the client's managers ''shoots the messenger'' of the bad news.
	Project manager wants to make him or herself look good.
	Project manager does not want to let the client down.
	Project Management wants to avoid hearing criticism and reproof.
	Project manager wants to keep up the project team's morale.
	Project manager does not want to look bad.
	Project manager believes that things will work out.
	Project manager thinks s/he can fix whatever is wrong or that it will all work out in the end.
	Project manager succumbs to management pressure.
	Project manager does not want to cause breach of contract.