Psychological Capital in IT and Non-IT Sectors: Investigation of Self-Efficacy, Hope, Resiliency and Optimism

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Abstract

The purpose of this empirical study is to document the role of psychological capital (self-efficacy, hope, resiliency and optimism) of employees in organizations spanning different industries. Psychological capital (or simply PsyCap), an individual's positive psychological state of development, consisting of the psychological variables of hope, self-efficacy, resilience, and optimism, has recently been demonstrated to be critical to an organization's gaining sustainable competitive advantage through its people. Research emphasis on PsyCap has now emerged to such extent that a quantitative analysis of its role in employees' attitudes, behaviors, sustainable growth and work performance is needed. Recently, theory and research have supported psychological capital (PsyCap) as an emerging core construct which encompasses positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for improving performance in contemporary workplace. The study employed these variables in an important segment of our contemporary work settings. In addition, employees belonging to different job sectors were compared with respect to these variables. Although scientific variables of psychological capital were found to be significantly inter-correlated, there were no significant group differences. The findings are explained in the light of existing conceptualizations in the field of psychological capital. Major implications for researchers and practitioners are discussed.

Key words: Self-Efficacy, Hope, Resiliency, Optimism, Psychological Capital, Performance.

1. Introduction

In today's workplace, where human capital is seen as an organization's sustainable competitive advantage, there is a constant emphasis on continuous performance improvements, sharp productivity curves and creating and nurturing job-related strengths, attitudinal work outcomes, positive virtues and other important personality-related traits. By narrowing down focus on individual shortcomings and dysfunctions and emphasizing more on personal strengths and virtues, today's leaders and their associates can overcome work-related adversities by developing self-efficacy, hope, optimism, and resilience, thereby catapulting both individual and organizational performance. Simply concentrating and accumulating more of the traditional resources such as economic and financial capital, proprietary information and advanced technology were once considered major for organizational prosperity and success but it has been long since proved to be insufficient for attaining sustainable sources of competitive advantage. There has been a paradigm shift in recent times where managers not only focus on such traditional resources, but also

emphasize on the valuable human capital (sometimes called intellectual capital)—"human" referring to the employees working at all levels of the organization, and the economic term "capital" referring to the resources that are invested for future anticipated returns. An organization with diminishing human capital is bound to perish in the long run.

Psychological capital, or simply PsyCap, has been conceptually identified by Luthans and his colleagues from University of Nebraska(Luthans,2002b; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007) as consisting of the four positive psychological resources of hope, optimism, efficacy, and resilience, which, when combined, have been empirically determined to be a second-order core construct (Luthans, Avolio, Avey, & Norman, 2007). A second-order construct is the shared variance between the four first-order constructs (hope, optimism, efficacy, and resilience).

Psychological Capital construct has attracted substantial research focus with the introduction of Positive Organizational Behavior by (Luthans,2002a; Wright,2003) in the Journal of Organizational Behavior. Luthans and his colleagues took insights from positive psychology movement pioneered by Martin Seligman and applied it to the workplace. Primary focus of positive psychology was to build on the strengths of people rather than only focusing on what was wrong with people and treating diseases only (Seligman & Csikzentmihalyi, 2000). Luthans (2002b), defined POB as "the study and application of positive human resource strengths and psychological resources that are measurable, developable and linked to performance" (Luthans, 2002b: p.59). Thus for a construct to be included within the POB framework, must satisfy particular inclusion specifications namely; the construct ought to be a positive psychological resource with theoretical rational, measurable, must be open to development (state-like) and should have relevance with work performance (Luthans, 2002b). Psychological capital is a multi-dimensional construct consisting of hope, self-efficacy, resilience, and optimism (Louthans, Youssef & Avolio, 2007).

PsyCap fundamentally means individual possessing psychological resources of hope, self-efficacy, resiliency and optimism. Luthans calls this as "HERO" Acronym where 'H' stands for Hope, 'E' for Efficacy, 'R' for Resiliency and 'O' for optimism. An example of how PsyCap factors integrate would be that hopeful persons who possess the agency and pathways to achieve their goals will be more motivated to and capable of overcoming adversities, and thus, be more resilient. Confident persons will be able to transfer and apply their hope, optimism and resiliency to the specific tasks within specific domains of their lives. A resilient person will be adept in utilizing the adaptation mechanisms necessary for realistic and flexible optimism. PsyCap self-efficacy, hope, and resiliency can in turn contribute to an optimistic explanatory style through internalized perceptions of being in control.

Despite potential problems and limitations, unlike traditional human and social capital or even the individual psychological capacities, PsyCap offers a dynamic resource potential that can grow and be sustainable over time. Further research regarding exploring new psychological capacities and taking a cross-cultural application of PsyCap is needed.

2. An Overview of Literature

Psychological capital (PsyCap) is a higher order construct that integrates the various POB criteria-meeting capacities, not only additively but also perhaps, synergistically. Psychological capital is defined as "an individual's positive psychological state of development and 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 and expectation (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, *Psychological Capital* (Oxford University Press, 2007, p. 3),

Thus, PsyCap consists of individual psychological capacities of **self-efficacy, hope, resiliency and optimism** and when combined the whole (PsyCap) may be greater than the sum of its parts.

Published research on PsyCap has found that it is related to multiple performance outcomes in the workplace: lower employee absenteeism and turnover, lesser employee grievances and intentions to quit, higher employee performance, job satisfaction, commitment, organizational connect and organizational citizenship behaviors. Research has also found PsyCap can be enhanced by a supportive work climate.

PsyCap recognizes, builds upon and goes beyond the existing established theory and research on human capital, that is, “what you know,” and social capital, that is, “who you know” (e.g., see Adler & Kwon, 2002; Coleman, 1988; Hitt & Ireland, 2002; Wright & Snell, 1999). Specifically PsyCap is concerned with “who you are” and, in the developmental sense, “who you are becoming” (Avoloio & Luthans, 2006; Luthans, Luthans, et al., 2004; Luthans & Youssef, 2004). PsyCap can include knowledge, skills, technical abilities, and experience because this is also “who you are.” The same is true for social capital. PsyCap can include group-level metaconstructs, such as social support and the network of relationships, that are a part of “who you are,” particulary in times of psychological stress (Sarason, Sarason, Shearin, & Pierce, 1987). However, how PsyCap goes beyond is found in the psychological capacities, which have generally been ignored in human and social capital, and especially the developmental piece of PsyCap of “what you are becoming.” That is, PsyCap recognizes moving (developing) from the actual self (human, social, and psychological capital) to the possible self (see Avolio & Luthans, 2006).

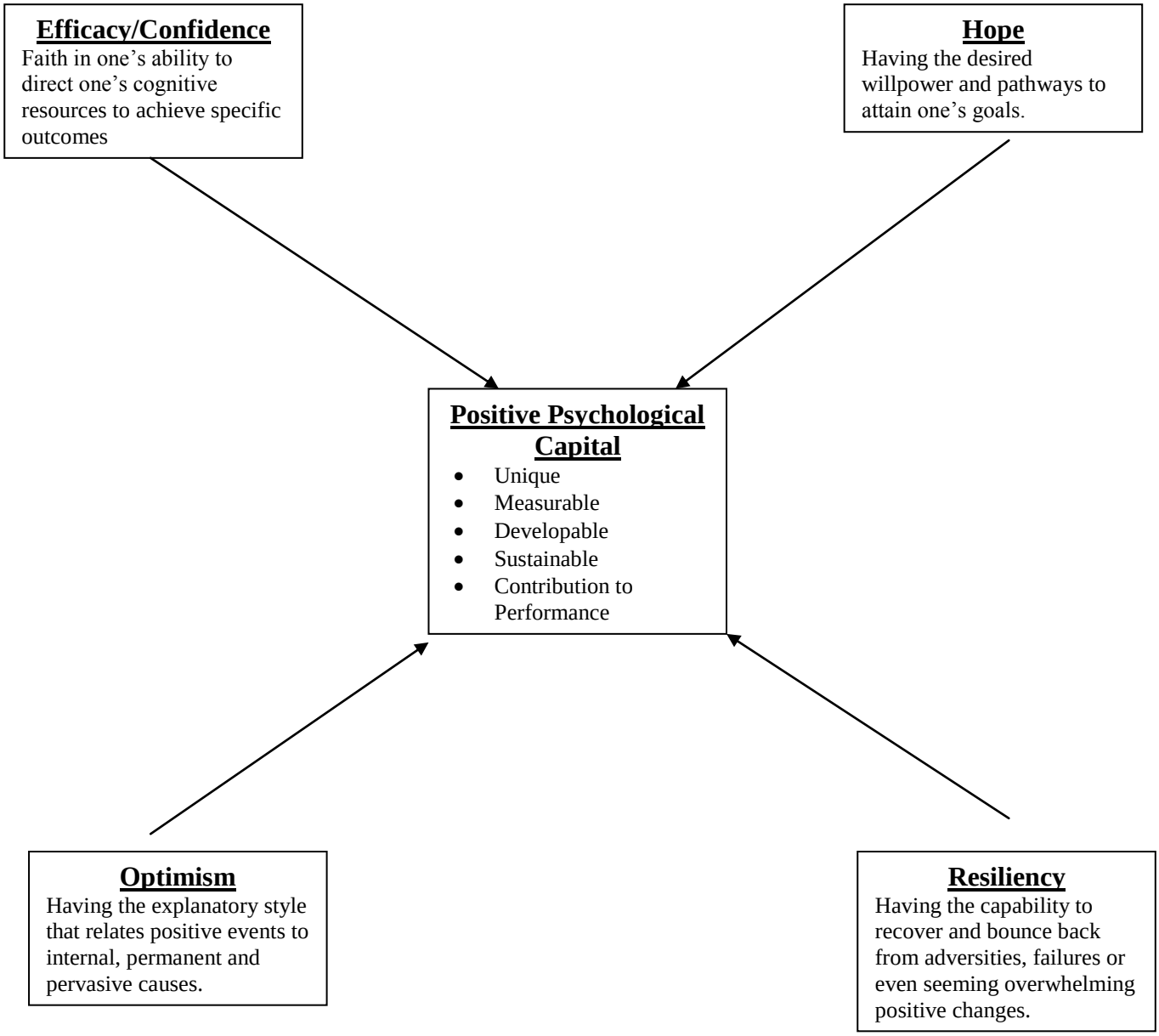
Instead of just introducing yet another set of “competencies” or “best practices” for organizational behaviour researchers and human resources practitioners to use, either individually or in combination, Luthans and his colleagues propose that Psycap offers a more comprehensive, higher order conceptual framework for understanding and capitalizing on human assets in today’s organizations (Avolio & Luthans, 2006; Luthans, Luthans, et al., 2004; Luthans & Youssef, 2004; Luthans, Youssef, et al.,

2006). Synergistically integrating human, social and psychological capital is central to actualizing human potential (i.e., attaining the possible self) in today's workplace.

2.1. The Positive Psychological Capital

As stated, 'PsyCap' has been demonstrated conceptually (Luthans, Youssef, & Avolio, 2007) and empirically (Luthans, Avolio, et al., 2007) to be a core construct.

Figure 1: Dimensions of Positive Psychological Capital



Specifically, it is a second-order factor comprised of the shared variance-between the four recognized positive psychological resources of hope, optimism, efficacy, and resilience. Each of these positive constructs meets the criteria for PsyCap of being grounded in theory and research with valid measures, being state-like and open to development, and having a positive impact on attitudes, behaviors, and performance (Luthans, Youssef, et al., 2007). An extensive review of the four components is beyond the scope of this article, but the components are briefly defined below. These definitions are then followed by the theoretical rationale for overall Psy-Cap and the study hypotheses are derived.

PsyCap Efficacy. Drawing from Bandura's (1986, 1997) extensive theory and research, PsyCap efficacy (or simply, confidence) can be defined as "one's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context" (Stajkovic & Luthans, 1998b, p.66). Although Bandura (1997) sparingly uses the term confidence and most efficacy theorists tend to treat confidence as conceptually subordinate to efficacy, especially in positive psychology the two terms are used more interchangeably (e.g. , see Maddux, 2002). Moreover, when used in the most applied domain of sports or business performance, confidence is the commonly used term (e.g., see Kanter, 2004). In Psycap, the two terms are used interchangeably to reflect the rich theoretical and research bases of self-efficacy (e.g., kanter, 2004). Whether one uses efficacy or confidence in the definition above, it is important to emphasize the link to one's belief. Self-efficacious people are distinguished by five important characteristics.

1. They select high goals for themselves and self-select into difficult tasks.
2. They welcome and thrive on challenge.
3. They are highly self-motivated.
4. They invest the necessary effort to accomplish their goals.
5. When faced with obstacles, they persevere.

These five characteristics equip high-efficacy individuals with the capacity to develop independently and perform effectively, even with little external input for extended periods of time. People with high Psycap efficacy do not wait for challenging goals to be set for them, which is often referred to as 'discrepancy reduction". On a contrary, they create their own discrepancies by continuously challenging themselves with higher and higher self-set goals and by seeking and voluntarily opting for difficult tasks. Self-doubt, skepticism, negative feedback, social criticism, obstacles and setbacks, and even repeated failure, which can be devastating for people with low efficacy, have little impact on highly efficacious individuals (Bandura & Locke, 2003).

PsyCap Hope. The most widely recognized theory-builder and researcher on hope in the positive psychology movement, C. Rick Snyder defined hope as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p.287).

Snyder's research supports the idea that hope is a cognitive or "thinking" state in which an individual is capable of setting realistic but challenging goals and expectations and then reaching out for those aims through self-directed

determination, energy, and perception of internalized control. This is what Snyder and colleagues refer to as "agency" or "willpower". However, often overlooked in common usage of the term, but as defined by Snyder and colleagues, another equally necessary and integral component of hope is what is referred to as the "pathways" or "waypower". In this component of hope, people are capable of generating alternative paths to their desired destinations should the original ones be blocked (Snyder, 1994, 1995a, 2000; Snyder, Ilardi, Michael, & Cheavens, 2000; Snyder, Rand, & Sigmon, 2002)

The pathways component mainly separates PsyCap hope from the everyday usage of the term and from the other Psycap states, such as resiliency, Self-efficacy, and optimism (e.g., see Bryant & Cvengros, 2004; carifo & Rhodes, 2002; Luthans & Jensen, 2002, pp.309-312; Magaletta & Oliver, of the distinctions, i.e., the discriminative validity of hope). Finally there is a continuous reiteration between agency and pathways, in which one's willpower and determination motivate the search for new pathways, while the creativity, innovation, and resourcefulness involved in developing pathways in turn ignite one's energy and sense of control, which when taken together, result in an upward spiral of hope (Snyder, 1993, 2000, 2002). If one has the potential to control in terms of going down alternative pathways that "just might work," then hope remains and can even grow.

PsyCap Resiliency. From a clinical psychology perspective, Masten and Reed (2002, p.75) define resiliency as a "class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk." In PsyCap approach, as indicated in the definition of resiliency in the introductory comments, Luthans and colleagues broadened the definition to include not only the ability to bounce back from adversity but also very positive, challenging events (e.g., record sales performance) and the will to go beyond the normal, to go beyond the equilibrium point (Avolio & Luthans, 2006; Luthans, 2002; Youssef & Luthans, 2005b).

Besides this recognition of positive as well as negative events and going beyond the normal or the return to equilibrium, there are various factors from positive psychology that have been identified and researched as contributing to or hindering the development of resiliency. These factors can be classified into assets, risk factors (Masten 2001; Masten & Reed, 2002; youssef & Luthens, 2005b), and values (Coutu, 2002; Kobsa, 1982; Richardson, 2002; Youssef & Luthans, 2005a). There is also recognition of adaptational processes that tie these three factors additively, interactively, and synergistically, resulting in resiliency (Cowan, Cowan, & Schulz, 1996).

Masten and Reed, (2002), argue for the 'developable' potential of resilience through specific strategies. Bonanno's (2005), research also supports (Masten and Reed, 2002), argument on the state-like nature of resilience construct. Furthermore, empirical findings signify that resiliency as a psychological resource was found to be developed with short term training interventions relative to workplace (e.g., Luthans et al. 2010; Peterson, et al., 2011; Luthans,Avey, & Patera,2008;). Resiliency shares positive relation with performance across various samples for example (Luthans, Vogelgesang & Lester, 2006; Harland et al., 2005; Luthans et al., 2005; Waite & Richardson, 2004; Zunz, 1998; Coutu,2002; Worline et al., 2002). Other empirical studies have also found positive relationship of resiliency

with success in accomplishments (e.g. Luthans, Avolio, et al., 2007 ; Luthans, Avey & patera, 2008; Luthans, Avey, Avolio, & Peterson, 2010). Apart from positive linkage with performance outcome, resilience also has positive relationship with job-satisfaction (Larson & Luthans, 2006 ; Luthans, Avolio, et al., 2007).

PsyCap Optimism. As presented by Martin Seligman, the former president of the American Psychological Association and the recognized father of the positive psychology movement, optimism is an explanatory style that attributes positive events to personal, permanent, and pervasive causes and interprets negative events in terms of external, temporary and situation-specific factors. On the other hand, a pessimistic explanatory style would interpret positive events with external, temporary, and situation-specific attributes and explain negative events in terms of personal, permanent, and pervasive causes (Seligman, 1998)

Based on this widely recognized definitional framework, optimists take credit for the positive happenstances in their lives. They view the causes of these desirable events as being within their power and control. Optimists would expect these causes to continue to exist into the future and to be useful handling other situations across life domains. Thus, their optimistic explanatory style allows them to positively view and internalize the good aspects of their lives not only in the past and the present, but also into the future. For example, optimistic employees who received some positive feedback and recognition from their supervisor will attribute this positive moment to their work ethic, and they will assure themselves that they will always be able to work hard and be successful not only in this job, but in any endeavor they choose.

By the same logic, when experiencing negative events or when faced with undesirable situations, optimistic people attribute the causes to be external, temporary and specific to the situation. Thus, they continue to remain positive and confident about their future. For example, if optimistic employees receive negative feedback regarding, say, a report they presented, they will probably use rationalizations, such as they were not themselves when they worked on or presented the report, that their colleagues did not provide the necessary information to enhance the quality of their report, or that the boss was simply in a bad mood when giving the negative feedback.

In contrast to this, pessimists do not give themselves credit for the positive events that occur in their lives. For example, a pessimistic person who has just received a promotion might explain it in terms of external reasons, such a good luck, other candidates lacking the needed experience, the job being undesirable, and so forth. In addition, the attribution causes that pessimists use tend to be temporary and specific to the situation, and thus they believe that positive events hold little chance of happening again in the future. Moreover, pessimists tend to blame themselves for the negative aspects of their lives. They internalize the causes of unfortunate situations and negative events. They assume that bad things will continue to exist for them into the future and threaten their success and well-being not only in similar situations, but across all domains of their life.

In view of the importance of these constructs, it is useful to investigate the role of these variables in a corporate setting. It is also crucial to examine the pattern of association amongst these variables.

The main objective of the present research is to examine the role of psychological capital in managers across industries i.e. IT viz-a-viz other sectors like Manufacturing,

Retail, Telecom, Construction etc. The other objective is to examine the role of job level in this context. The purpose is to generate specific implications for gearing intervention programs aimed at enhancing adaptation.

3. Method of Dtudy

The method involves a sequence of activities.

3.1. The Design of Study

The study was conducted on managers across IT (Information Technology) and Non-IT sectors. Ninety employees participated in the study of which forty-five were managers employed in IT sectors and remaining 45 were managers who were sampled from sectors like FMCG, Manufacturing, Telecom, Retail, Construction etc. The participants were contacted through emails, professional networking site like LinkedIn and social networking sites like Facebook and Twitter. Most of the participants were in the age group of 25-30 years (Mean = 28.39 and Standard Deviation = 2.46) and were engineers or management graduates or both. The dependent variables were self-efficacy, hope, resiliency and optimism.

3.2. Sample

Ninety managers (45 from IT and 45 from Non-IT sectors) were randomly sampled from among the managers of IT and Non-IT sectors. Within the Non-IT sectors, managers were chosen from Retail, Manufacturing, Telecom, FMCG, Construction etc. Care was taken to maintain the level of power, position and salaries similar across sectors.

3.3. The Measure of Psychological Capital

The formal definition of psychological capital 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).

Luthans (2007) has developed and validated the scale of psychological capital. The scale has 24 items to which the participant has to respond on a 6 point Likert-type scale: 1 ~ *strongly disagree,* 2 ~ *disagree,* 3 ~ *somewhat disagree,* 4 ~ *somewhat agree,* 5 ~ *agree,* and 6 ~ *strongly agree*. The sum of scores across items is indicative of an individual's psychological capital. However for question no. 13, 20 & 23 the points will be taken opposite to the point marked by the respondent i.e. if marked 1 then point to be taken as 6, if marked 2 point to be taken as 5 like wise.

The 24- items- scale contains four parameters (efficacy, hope, resiliency and optimism). Each parameter has 6 items.

Measure of Efficacy. Self-efficacy can be defined as: "an individual's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context" (Stajkovic & Luthans, 1998b, p.66.). Respondents are asked to indicate their level of confidence that they can execute a work despite challenges in an organizational setting. There are 06 items (item no.1 to 6) to which the respondents

are to answer. A sample item reads: "I feel confident helping to set target/goals in my work area" and the respondent has to respond on a 6-point-scale as mentioned above. The sum of scores across items is indicative of an individual's efficacy.

Measure of Hope. Hope is defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)." (Snyder, Irving & Anderson, 1991, p.287). Considering this, 06 items (item no.7 to 12) are there to which the respondents are to answer. A sample item reads: "If I should find myself in jam at work, I could think of many ways to get out of it" and the respondent has to respond on a 6-point- scale. The sum of scores across items is indicative of an individual's hope parameter.

Measure of Resiliency. Resiliency is defined as "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility" (Luthans, 2002a, p.702). There are 06 items (item no.13 to 18) to which the respondents are to respond. One of the items reads: "I usually take stressful things at work in stride." and the respondent has to respond on a 6-point-scale. The sum of scores across items is indicative of an individual's resiliency.

Measure of Optimism. According to Seligman (1998), optimism is an attributional style that explains positive events in terms of personal, permanent and pervasive causes, and negative events as external, temporary and situation-specific. There are 06 items (item no.19 to 24) the respondents are to answer. One of the items reads: "I'm optimistic about what will happen to me in the future as it pertains to work." and the respondent has to respond on a 6-point-scale. The sum of scores across items is indicative of an individual's optimism.

3.4. Procedure

The participants were contacted through emails, professional and social networking sites to participate in the survey. All the measures were administered as a single unit. The quantitative data were generated with respect to each of the dependent measures.

4. Result

The purpose of present investigation is to compare managers from IT and Non-IT sectors with respect to several dimensions of the psychological capital.

The association is examined in the form of Pearson's correlation coefficients. The inter-correlation matrix is examined in the context of IT managers. The result shows significant relationship between self-efficacy and hope, $r\ (43) = .60$, $p < .001$. It implies that with increase in hope, self-efficacy also increases. Self-efficacy is significantly related to resiliency, $r\ (43) = .49$, $p < .01$. It implies that with increase in self-efficacy, resiliency increases. This is in the expected direction. There is a significant relationship between self-efficacy and overall psychological capital, $r\ (43) = .84$, $p < .001$. It implies that with increase in self-efficacy, overall psychological capital increases.

Table 1: Inter-correlation amongst measures obtained from IT Managers (N=45)

	Variables	1	2	3	4
1	Self-Efficacy				
2	Hope	.60***			
3	Resiliency	.49**	.57***		
4	Optimism	.61***	.58***	.35*	
5	Overall PsyCap	.84***	.86***	.75***	.78***

***p<.05**

****p<.01**

*****p<.001**

A significant relationship can be seen between hope and resiliency, r (43) = .57, p < .001. It implies that with increase in hope, resiliency increases. The variables hope and optimism are significantly inter-correlated, r (43) = .58, p < .001. It implies that with increase in hope, optimism increases. This is in the expected direction. A significant association can be seen between hope and overall psychological capital, r (43) = .86, p < .001. It implies that with increase in hope, overall psychological capital increases. Overall psychological capital is significantly related to resiliency, r (43) = .75, p < .001. It implies that with increase in resiliency, overall psychological capital increases. Also a significant association can be seen between optimism and overall psychological capital, r (43) = .78, p < .001. It implies that with increase in optimism, overall psychological capital increases. This is in the expected direction. The result shows significant relationship between variables self-efficacy and optimism, r (43) = .61, p<.001. It means with increase in self-efficacy, optimism increases.

The inter-correlation matrix is examined in the context of managers from Non-IT sectors. The result shows significant relationship between self-efficacy and hope, r (43) = .70, p < .001. It implies that with increase in hope, self-efficacy also increases. A significant association can be seen between self-efficacy and overall psychological capital, r (43) = .80, p < .001. It implies that with increase in self-efficacy, overall psychological capital increases. This is in the expected direction. Hope is significantly related to optimism, r (43) = .56, p < .001. It implies that with increase in hope, optimism increases. There is a significant relationship between hope and overall psychological capital, r (43) = .84, p < .001. It implies that with increase in hope, overall psychological capital increases. A significant relationship can be seen between overall psychological capital and resiliency, r (43) = .71, p < .001.

Table 2: Inter-correlation amongst measures obtained from Non-IT Managers (N=45)

	Variables	1	2	3	4
1	Self-Efficacy				
2	Hope	.70***			
3	Resiliency	.42**	.28		
4	Optimism	.32*	.56***	.38*	
5	Overall PsyCap	.80***	.84***	.68***	.74***

***p<.05**

****p<.01**

*****p<.001**

It implies that with increase in resiliency, overall psychological capital increases. The variables optimism and overall psychological capital are significantly inter-correlated, r (43) = .74, p < .001. It implies that with increase in optimism, overall psychological capital increases. This is in the expected direction. The result shows non-significant association between resiliency and hope, r (43) = .28.n.s., between optimism and self-efficacy, r (43) = .32.n.s.. There shows no relation between resiliency and hope, optimism and self-efficacy.

The inter-correlation matrix is examined in the context of all managers (both IT-sector and Non-IT sector). The product moment correlation coefficients obtained from all managers show a significant relationship between hope and self-efficacy, r (88) = .65, p < .001. It implies that with increase in self-efficacy, hope also increases. Resiliency is significantly related to self-efficacy, r (88) = .45, p < .001.

Table 3: Inter-correlation amongst measures obtained from all Managers (N=90)

	Variables	1	2	3	4
1	Self-Efficacy				
2	Hope	.65***			
3	Resiliency	.45***	.41***		
4	Optimism	.45***	.56***	.37***	
5	Overall PsyCap	.82***	.85***	.71***	.75***

***p<.05**

****p<.01**

*****p<.001**

It implies that with increase in self-efficacy, the resiliency also increases. This is in the expected direction. The variables self-efficacy and overall psychological capital are significantly inter-correlated, r (88) = .82, p < .001. It implies that with increase in self-efficacy, the overall psychological capital also increases. Resiliency is significantly related to hope, r (88) = .41, p < .001. It implies that with increase in hope, the resiliency also increases. A significant association can be seen between hope and optimism, r (88) = .56, p < .001. It implies that with increase in hope, the optimism increases. A significant relationship can be seen between hope and overall psychological capital, r (88) = .85, p < .001. It implies that with increase in hope, the overall psychological capital also increases. A significant association can be seen between resiliency and overall psychological capital, r (88) = .71, p < .001. It implies that with increase in resiliency, the overall psychological capital also increases. This is in the expected direction. The variables optimism and overall psychological capital are significantly inter-correlated, r (88) = .75, p < .001. It implies that with increase in optimism, the overall psychological capital also increases.

The managers of IT sector and Non-IT sectors are compared with respect to each of the psychological capital variables.

Table 4: Mean psychological scores obtained from all participants (N=90)

Variables	IT Managers		Non-IT Managers		t-value
	Mean	SD	Mean	SD	
Self-Efficacy	28.16	3.60	29.24	3.42	-1.44*
Hope	26.49	3.78	27.56	3.85	-1.38*
Resiliency	26.29	3.42	26.22	3.64	.10
Optimism	24.80	3.27	24.62	3.48	.35
Overall PsyCap	105.73	11.37	107.64	10.98	-.98

***p<.20**

The result shows that Non-IT managers tend to score higher on self-efficacy though the t-value does not reach the level of statistical significance, t (88) = -1.44, p < .20. As shown by Table-4, Non-IT managers tend to show greater self-efficacy than IT managers (M = 29.24 and 28.16, respectively). Groups are compared on hope and the result shows that Non-IT managers tend to show a greater degree of hope when compared with IT managers, though the t-value does reach the level of statistical significance, t(88)=-1.38 , p < .20. As shown by Table-4, Non-IT managers tend to score higher in hope than IT managers (M=27.56 and 26.59, respectively).

When groups are compared on resiliency, the result shows non-significant effect, t (88) = 0.10, n.s.. The examination of mean scores reveals that Non-IT managers exhibit as much resiliency as do IT managers (M=26.22 and 26.29, respectively). Groups are compared on optimism and the result shows non-significant effect, t (88) = 0.35, n.s.. As shown by Table-4, Non-IT managers exhibit same level of optimism as do IT managers (M=24.62 and 24.80, respectively).

When groups are compared on composite value of all the four variables, the result shows non-significant effect, t (88) = -.98, n.s.. The examination of mean scores reveals that Non-IT managers tend to exhibit same level of psychological capital as IT managers (M=107.64 and 105.73, respectively).

4.1. Summary of Result

The findings of the study generate a number of salient features.

1. As predicted, the psychological capital components (self-efficacy, hope, resiliency, and optimism) are significantly inter-related with each other. This is in harmony with our predictions. Each component is strongly related to overall psychological capital. This reflects internal consistency.

2. The 'Non-IT' sector managers tend to score higher in 'self-efficacy' and 'hope' than 'IT' sector managers.

3. 'Non-IT' sector managers tend to show as much PsyCap as do 'IT' sector managers.

5. Discussion

The psychological capital dimensions (self-efficacy, hope, resiliency, and optimism) are significantly inter-correlated with each other. This is in harmony with our prediction and reflects internal consistency. Thus PsyCap has been demonstrated to be a core construct. Specifically, it is a second-order factor comprised of the shared variance-between the four recognized positive psychological resources of hope, optimism, efficacy, and resilience. Each of these positive constructs meets the criteria for PsyCap of being grounded in theory and research with valid measures, being state-like and open to development, and having a positive impact on attitudes, behaviors, and performance. It seems plausible that the managers who are resilient show greater general-efficacy as well as job-efficacy and they are also optimistic. Data obtained both from IT managers and Non-IT managers show high degree of inter-correlation amongst hope and self-efficacy as well as hope and optimism.

The 'Non-IT' sector managers tend to display a greater degree of hope and self-efficacy as compared to IT sector managers. The Non-IT sector has become consistent over the years so it might seem plausible that employees working have minimal chances of getting nebulous feedback for their work. Whereas IT sector being one of the most rapidly growing sectors in India and being in a state of flux and with stricter employee delivery deadlines, the IT organizations need to lay more focus on enhancing self-efficacy and hope psycap variables of its employees. It could be conjectured that employees belonging to 'Non-IT' sectors possess the necessary agency and pathways needed for their job which might be provided by their organizations in the form of a supportive work environment.

The psychological capital (self-efficacy, hope, resiliency, and optimism) are attitudinal structures. An organization provides a homogeneous environment where all the managers work in the same ambience, there are no major differences across the groups with respect to other components. However, Non-IT managers tend to display higher self-efficacy than the IT managers. It might be that Non-IT organizations have highly focused workplace micro-interventions, give positive and time to time feedback on employee performance and encourage them to form self-managed teams. Self-

efficacy can be strengthened by giving them opportunities to experience mastery or success.

Optimism has been depicted as both dispositional and trait-like and thus relatively fixed (e.g., Scheier, et al., 1989), but also state-like (i.e., "learned optimism," Seligman, 1998). Even though Luthans and colleagues recognize that a conceptual continuum may exist (Luthans & Avolio, 2003), in order to meet the criteria of PsyCap optimism, they emphasize its state-like, developmental properties. Specifically, PsyCap optimism can be developed by either altering a pessimistic explanatory style or enriching the dimensions of an optimistic explanatory style. Schneider (2001) presents three perspectives that are particularly applicable to developing realistic optimism in workplace:

1. Leniency for the past
2. Appreciation for the present; and
3. Opportunity seeking for the future

Exploratory research findings support a positive relationship between employee's hope and organizational profitability (Adams, et al., 2002) and between entrepreneurs' hope levels and expressed satisfaction with business ownership (Jensen & Luthans, 2002). Youssef (2004) also showed that the hope level of over 1000 managers and employees is positively related to their performance, job satisfaction, work happiness, and organizational commitment.

Both individual and organizational performance is improved by developing good qualities like self-efficacy (confidence), hope, optimism and resilience. This has been demonstrated theoretically and empirically to be a higher-order core factor that Luthans and colleagues termed as psychological capital or PsyCap. (Luthans & Youssef, 2004).

5.1. Implications

The analysis of data reveals that Non-IT managers tend to show greater self-efficacy and greater hope than do IT managers; this reflects the effects of positive work environments. Organizations throw multiple challenges on its employees, now it's upon employees how they face these difficulties with a positive outlook and continuously thrive to achieve their goals.

A future study can be undertaken with a larger sampling frame so that some differences in PsyCap variables in more definitive terms might be able to surface. The study may also be taken up with a larger sample in cross-cultural work environments. Managers of different countries may be considered for study. Both male and female managers may also be included for the study. The participants may be from private and public sectors. Such an increase in the sampling frame may provide much more useful information.

Findings obtained from the examination of role of components of psychological capital (self-efficacy, hope, resiliency and optimism) variables provide inputs for interventions. IT managers tend to have lower self-efficacy and hope than Non-IT managers. Now interventions should be brought in by developing and nurturing hope between employees. Management should encourage their employees for effective-goal setting i.e. specific, measurable, attainable, challenging goals as this will help them

deliver superior performance. Emphasis should be on increasing employee engagement and empowering them to work in self-managed teams.

Similarly self-efficacy can be developed through the opportunities to experience mastery/success, vicarious learning/modeling, social persuasion and positive feedback, and psychological and physiological arousal and well-being (Bandura, 1997, 2000; Hannah, 2006; Luthans, et al., 2001; Luthans, Luthans & Luthans, 2004; Luthans & Youssef, 2004; Maddux, 2002; Stajkovic & Luthans, 1998a, 1998b).

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