

TEAM CLIMATE AND GROUP POTENCY: Implications for Team Performance and Satisfaction



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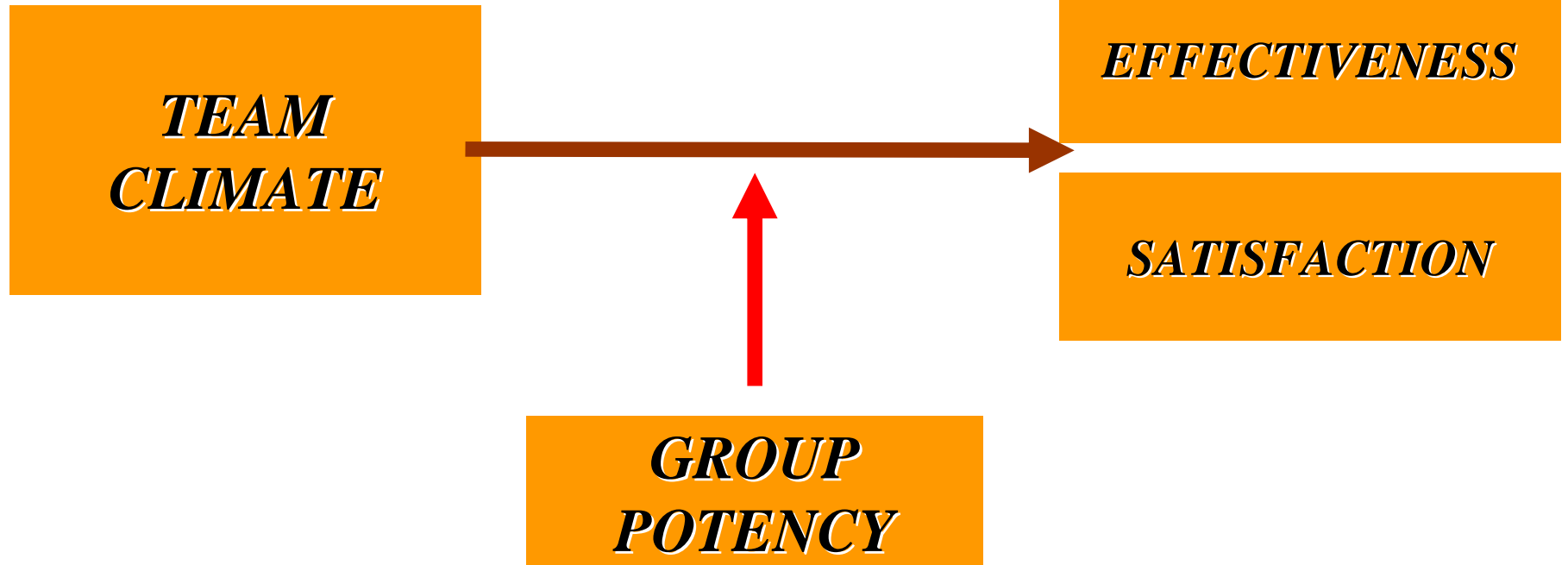
**5137 Oral Session
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MEETING ROOM 5
15.20-17.20**

**XXVIII International Congress of
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Aim

MODEL



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TEAMS

Teams form the basic functional unit of practically any organization. In the current situation of technological and environmental change, increasing globalization, and emerging opportunities derived from the new information and communication technologies (Shamir, 1999) the design of organizations has necessarily become more complex, requiring greater horizontal development. In this light, team-based organizational structures are an important part of the solution (Devine et al., 1999; Mohrman, Cohen & Mohrman, 1995).

Practically all organizations, including healthcare institutions (Heinemann & Zeiss, 2002; Poole & Real, 2003), use teams in one way or another and their effectiveness therefore depends on appropriate design and the proper functioning of work units and teams (Guzzo & Dickson, 1996).

One variable that is believed fundamental, and which is the subject of an extensive literature in its own right, is leadership. Even so, only a few models (Avolio et al., 1996; Gladstein, 1984; Kozlowski et al., 1996; Stewart & Barrick, 2002) explicitly take leadership into account as a determining factor in team results.

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TEAM CLIMATE

Team climate have been defined as “shared perceptions” refered to the nearby work group, which is to say the “permanent or semi-permanent team to which subjects are assigned, with which they identify and with which they interact on a regular basis in order to carry out work-related tasks” (Anderson & West, 1998)

Evaluation using the TCI (Team Climate Inventory) takes as its starting point the four factor theory applied to innovation: a) vision (or objectives); b) participative safety (or participation); c) task orientation; and d) support for innovation (West, 1990).

Of these four factors, support for innovation has been confirmed as the most consistent predictor in external evaluations of team innovations (Burningham & West, 1995).

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GROUP POTENCY

Potency has been defined as “the collective belief existing in a group that it can be effective” (Guzzo et al., 1993)

Despite elements in common with other constructs, such as self-effectiveness, and with other collective motivation models, group potency differs from these in that it operates at the level of analysis of the group performance unit.

Potency has been identified as a significant cognitive influence on effectiveness (Gil & Alcover, 2002; Guzzo et al., 1993; Jordan, Field & Armenakis, 2002; Pearce, Gallagher & Ensley, 2002).

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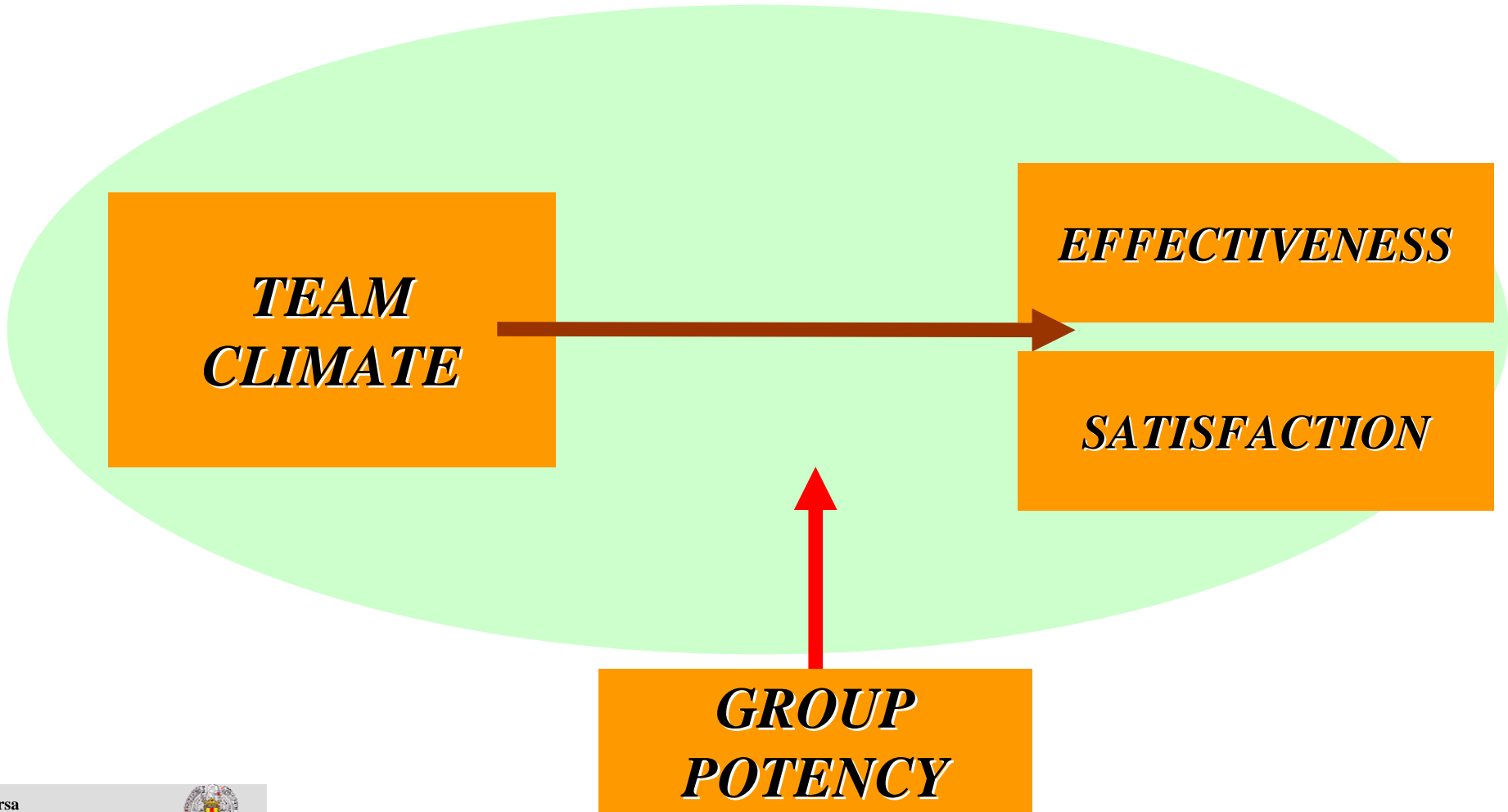
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HYPOTHESIS



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SAMPLE

The sample comprises 318 participants, who are members of 78 healthcare teams at different public hospitals throughout Spain (Madrid, Barcelona, Malaga, La Corunna, Seville and Cadiz). Eleven teams were discarded because we did not receive an appropriate number of responses from members (teams with a response rate of below 30% of total members) or because they lacked at least two external measures of effectiveness.

The final sample was thus formed by 67 teams. In all cases, the organizations were formally designed around work units (teams)

The size of the work teams ranged from 3 to 24 members, with an average per team of 10.6 (SD = 5.33). The response rate obtained was 68.4%.

Males comprise 34.6 % of the sample, and the remainder are females. The average age of subjects was 41.4 years (SD = 8.65)

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MEASUREMENT

Because this study was performed at the level of the team, having collected questionnaires at the level of the individual, it was necessary first to aggregate data in order to obtain the team construct.

ICC (intra-class correlation) index provides an indication of the extent to which the perceptions of group members are shared or, to be exact, it compares the inter-group with the intra-group variance (Chan, 1998; Kenny & LaVoie, 1985). The higher the ICC index, the greater the variance at the individual level attributable to the relevant team.

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MEASUREMENT: TEAM CLIMATE

We used the TCI (Team Climate Inventory) designed by Anderson & West (1994). The inventory contains 38 items (= 0.96; ICC = 0.55) with 5-point Likert responses (1 = disagree completely, 5 = completely agree) grouped into 4 factors

Scale of objectives (11 items. E.g.: “To what extent are you clear about your objectives?”) $\alpha = 0.93$
Scale of participation (12 items. E.g. “Do all points of view, including minority opinions, receive a hearing?”) $\alpha = 0.94$

Scale of task orientation (7 items. E.g.: “Does the team have clear criteria that members are required to comply with to achieve team success?”) $\alpha = 0.84$

Scale of innovation (8 items. E.g.: “Is the team open to and ready for change?”) $\alpha = 0.82$,

ICC = 0.53. This inventory (Anderson & West, 1998) has been used in a number of studies and adaptations with differing samples.

These include research in the following countries: Sweden (Agrell & Gustafson, 1994), Finland (Kivimäki et al., 1997; Kivimäki & Eloviano, 1999), Germany (Brodbeck & Maier, 2001) and Portugal (Curral et al., 2001). Results confirm the good psychometric properties of the scale.

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MEASUREMENT: GROUP POTENCY

We used the scale proposed by Guzzo et al. (1993), which was translated and adapted for use in Spanish by Alcover and Gil (2000)

We obtained $\alpha = 0.81$, while in the present study we have $\alpha = 0.88$ (ICC = 0.59)

The scale comprises 8 items (e.g. “This team believes it can be very productive in performing its task” and “This team would be able to complete any task, however difficult”).

Responses were scored using a 6-point Likert scale (1 = disagree completely, 6 = completely agree).

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MEASUREMENT: TEAM EFFECTIVENESS

Team effectiveness was assessed via external supervisors and managers with appropriate knowledge, each team being scored as a unit.

Scale used by Ancona and Caldwell (1992) was applied. This comprises 5 dimensions for effectiveness scored through 5 items (team effectiveness, quality of technical innovations, compliance with deadlines, budget compliance and conflict resolution skills) in the opinion of managers, with $\alpha = 0.83$.

Each dimension was scored using a 5-point Likert scale (1 = disagree completely, 5 = completely agree). Between two and three evaluations were obtained from various supervisors and managers with a good knowledge of the team (in the absence of at least two such evaluations teams were discarded), resulting in an inter-judge coefficient of 0.74

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MEASUREMENT: SATISFACTION

Team satisfaction was assessed using Gladstein's (1984) scale

which was translated and adapted for use in Spain by Alcover (1998), when he obtained $\alpha = 0.79$

Scale comprises three items ($\alpha = 0.85$; $ICC = 0.52$), which indicate the degree to which subjects display satisfaction with their colleagues, the manner of team working and with the team as a whole

Responses were scored using a 5-point Likert scale (1 = disagree completely, 5 = completely agree).

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MEASUREMENT: CONTROL VARIABLES

Control measures employed were

team size (a score was assigned to the number of team members based on data provided by the pertinent department) with an average of 10.6 (SD = 5.33),

and tenure or member seniority (a score was assigned to the time each member had formed part of the team based on individual responses, as a result of which we obtained an aggregate measure for each team at the group level with ICC = 0.59) with an average of 9.6 (SD = 5.49).

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PROCEDURE

We contacted the human resources departments at each center to apply for their assistance. We also held meetings with the HR managers and the supervisors, officers and managers responsible for the various work units concerned to explain the objectives of the project and the procedure we intended to follow.

Team members were invited to participate voluntarily by completing an individual and anonymous questionnaire.

External supervisors and managers were also asked to complete a specific questionnaire, again individually and anonymously, to score group effectiveness.

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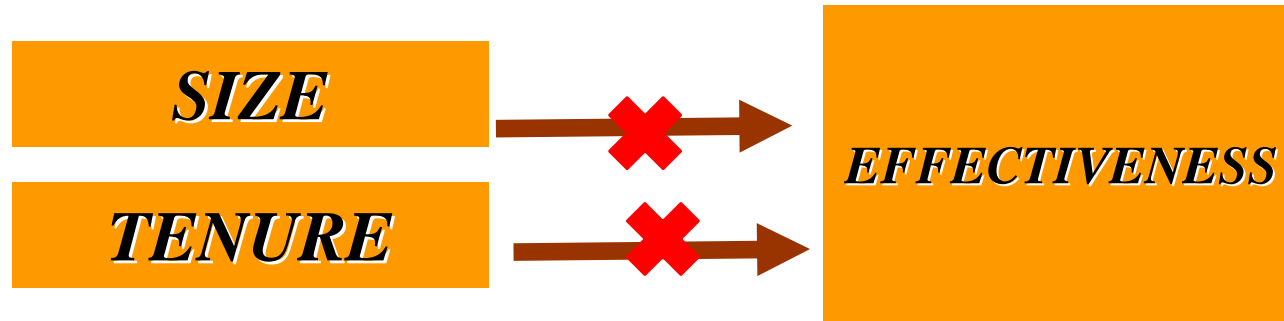
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RESULTS (1)



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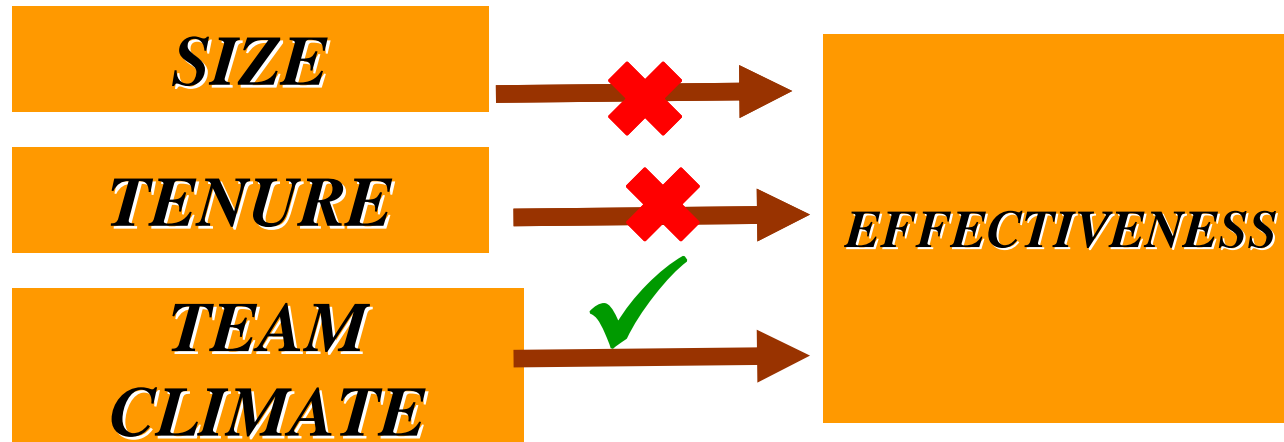


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RESULTS (2)



$\Delta R^2 = ,36^{**}$ $R^2 = ,37$

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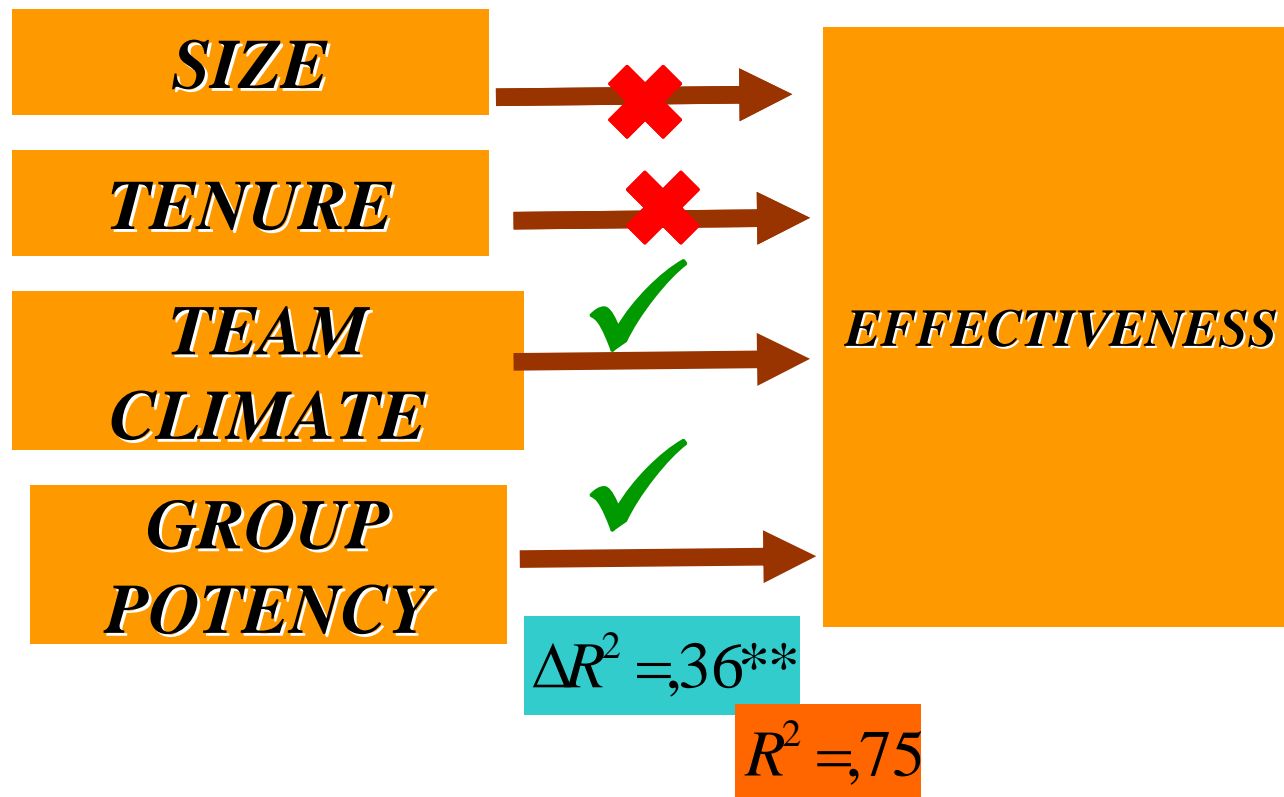


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RESULTS (3)



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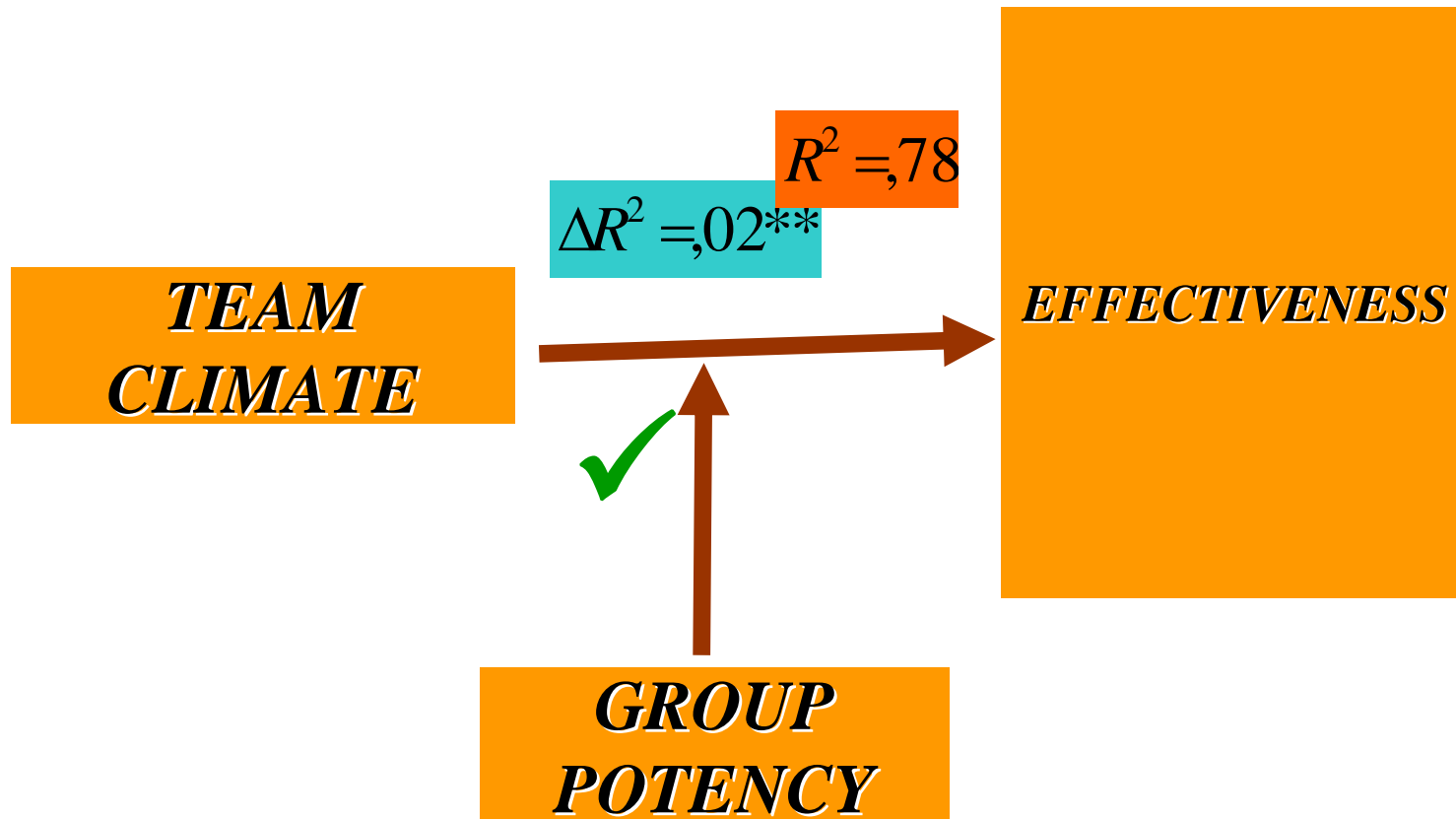


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RESULTS (4)



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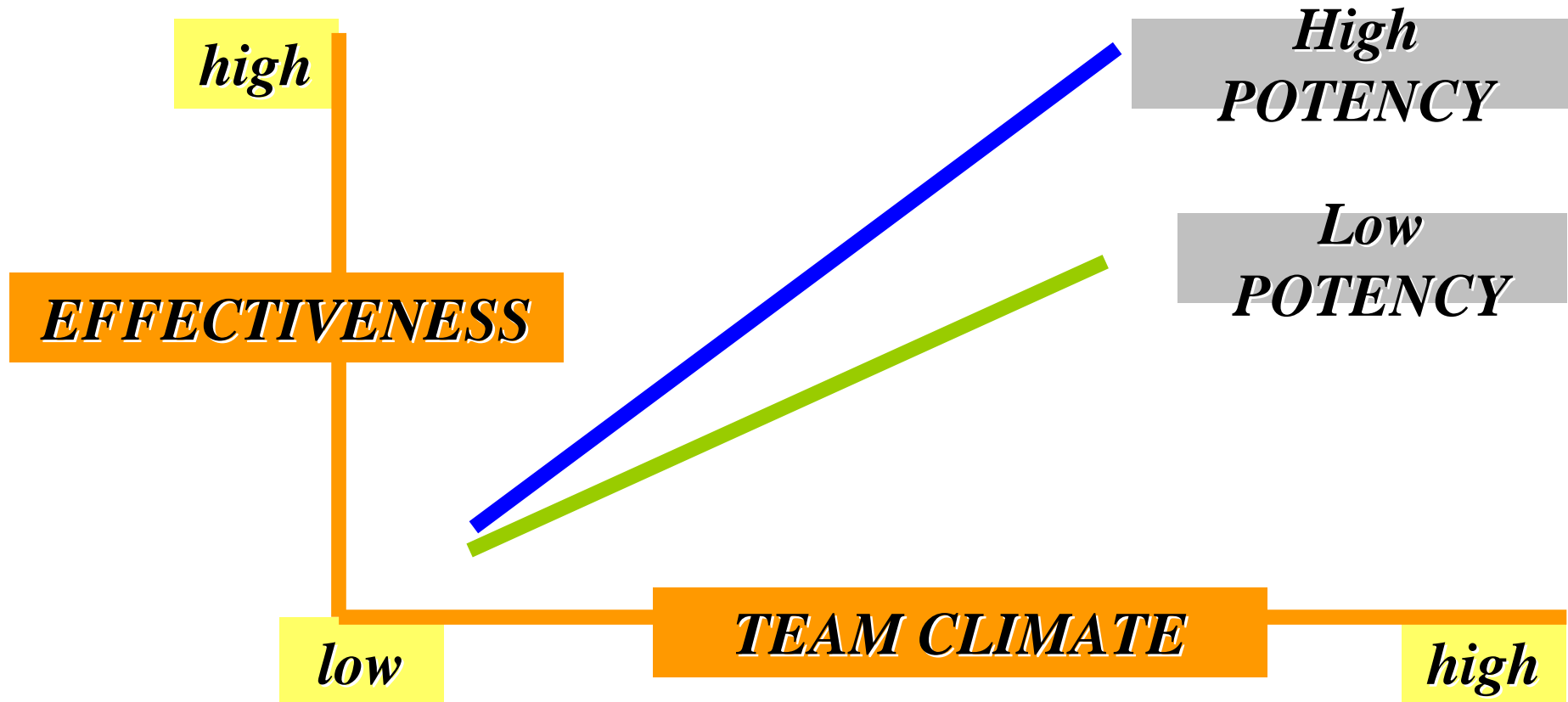


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RESULTS (5)



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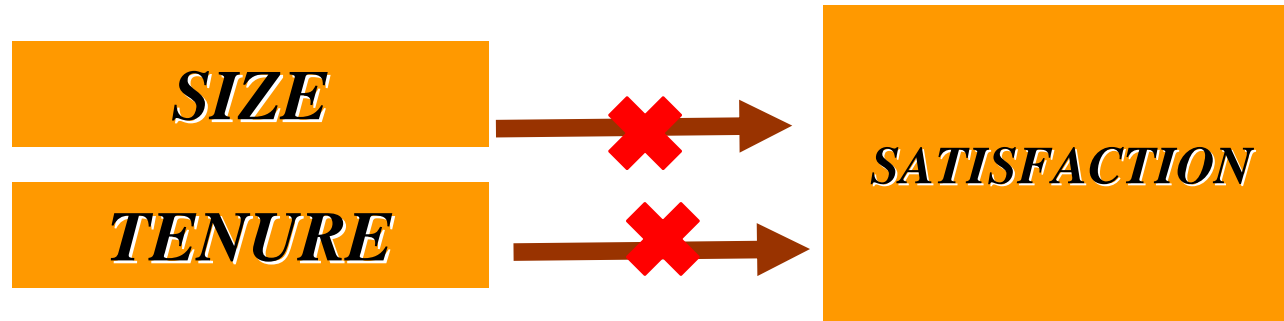


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RESULTS (1)



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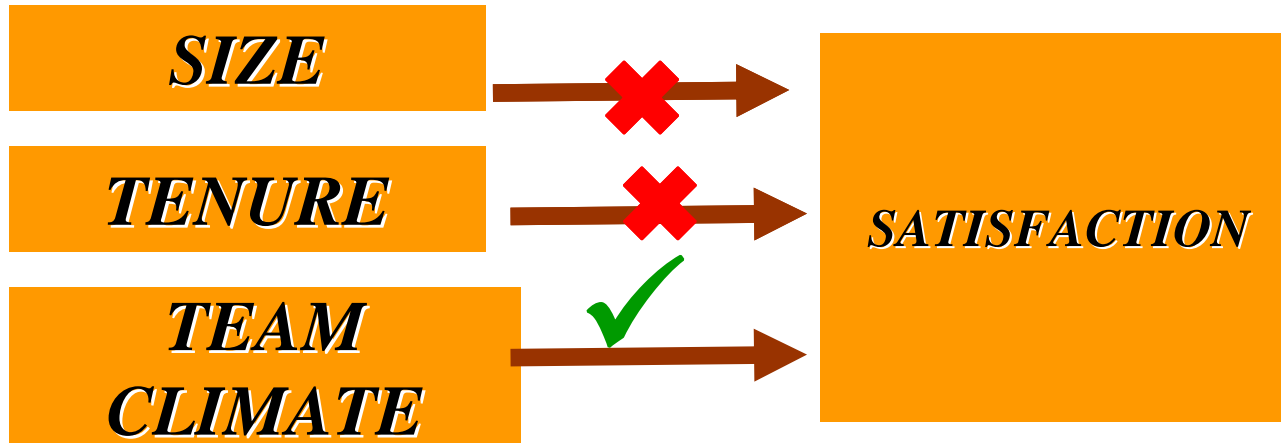


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RESULTS (2)



$\Delta R^2 = ,26^{**}$ $R^2 = ,28$

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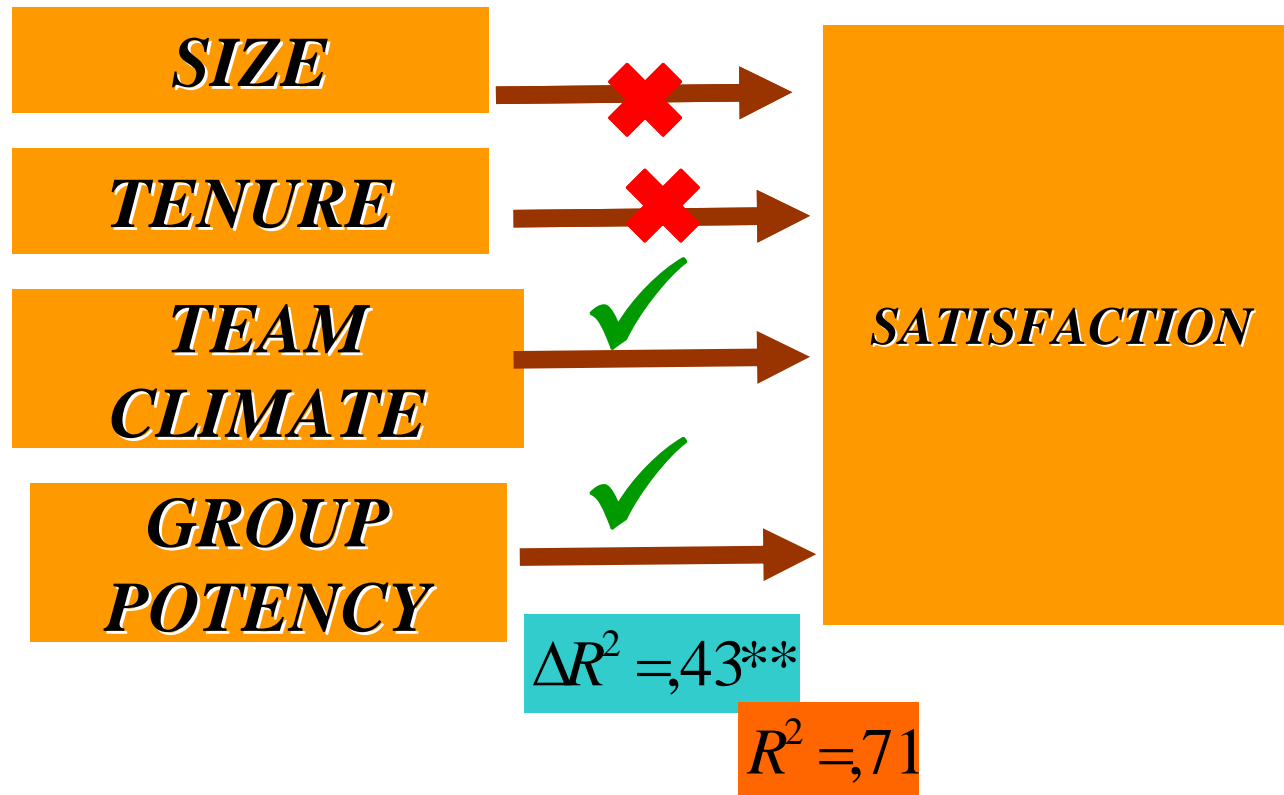


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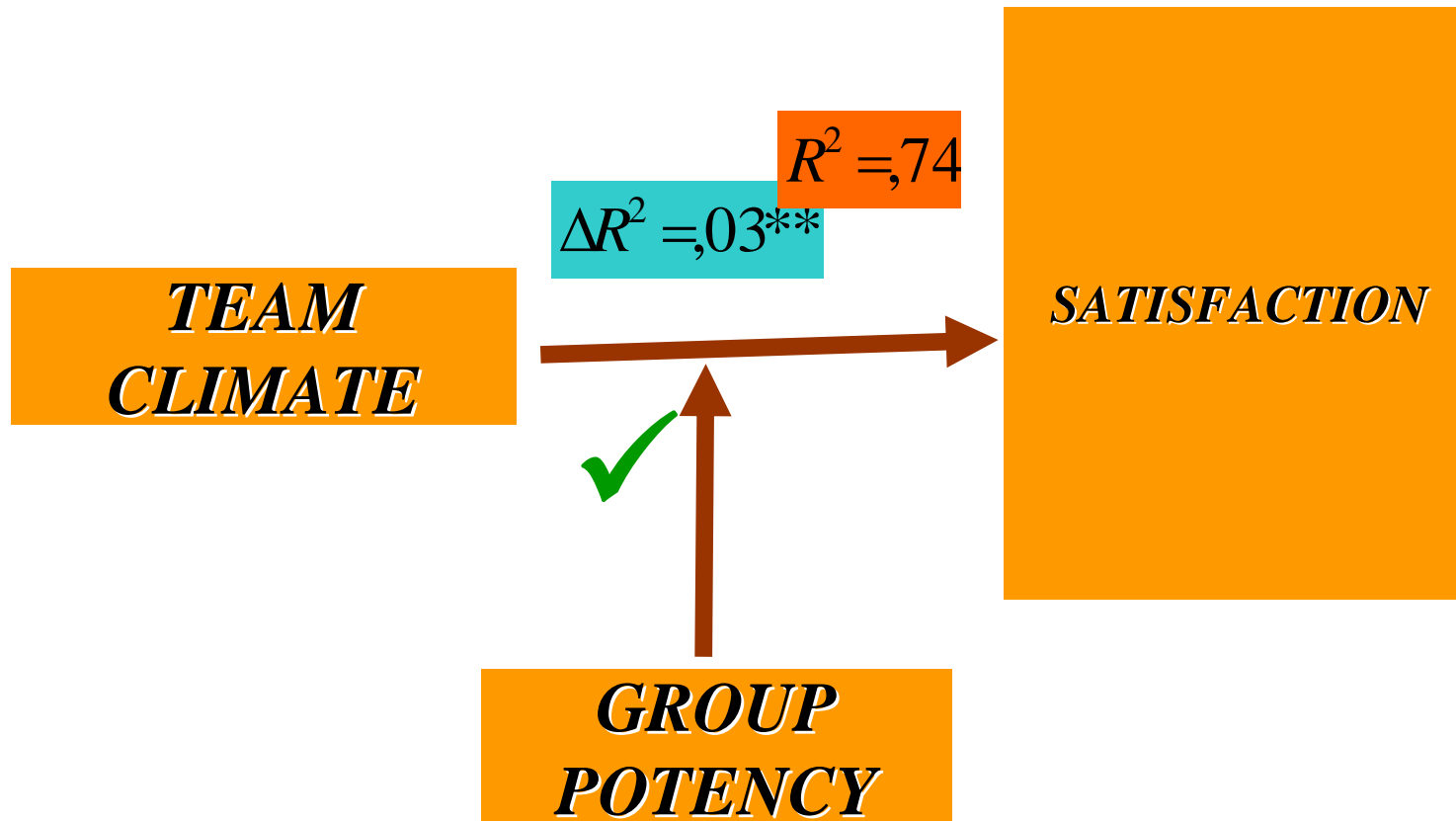


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RESULTS (4)



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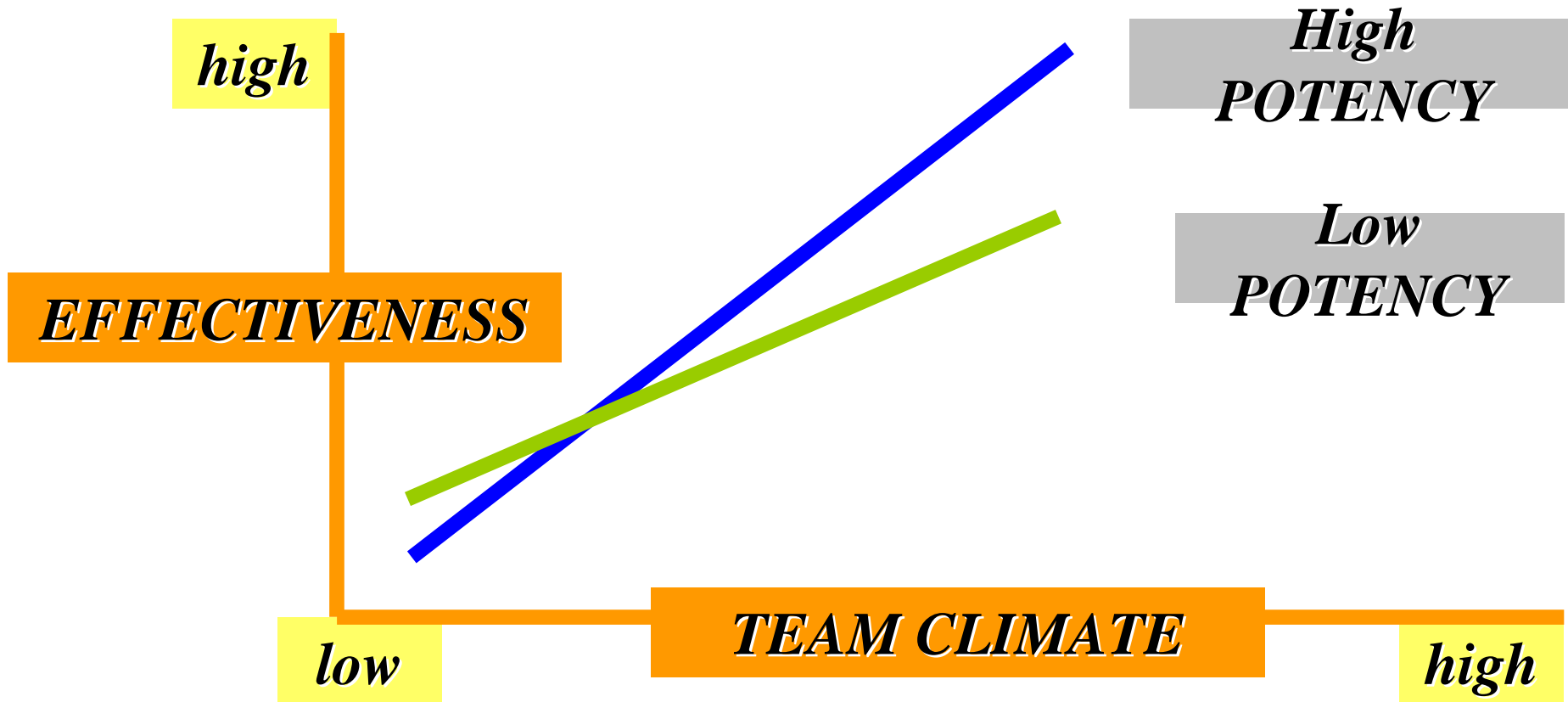


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RESULTS (5)



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Theoretical and applied implications

In general, our results offer considerable empirical support for the proposed model, underlining the importance given to the variables selected in the literature. However, they also qualify the relationships and links established between these variables. Our results also provide support for the treatment of team climate and group potency

Satisfaction being strongly associated with climate, it is also essential to take action designed to boost this factor in the manner we have just described. In the case of high potency teams, where self-confidence is likely to be a major source of satisfaction, we would reiterate the importance of implementing the measures discussed but with the aim of strengthening, and even increasing potency.

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Limitations and future directions

t would also be of interest to use samples differentiated by service within the healthcare field, including both public and private institutions, and from other sectors. It would also be interesting to fill out this correlative and cross-level study by carrying out experimental research to establish the direction of causality, as well as longitudinal work to explore the possible influence of team development over time.

Our findings also invite research to explore the conditions under which change-oriented leadership, insofar as it represents a strategic issue, will have the greatest impact, analyzing the environment, external relations and so on, as well as the moderating role of leadership between these variables and climate, as proposed by West and Hirst (2003).

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