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INVESTIGATING THE RELATIONSHIP BETWEEN TEAM ROLE DIVERSITY AND TEAM PERFORMANCE IN INFORMATION SYSTEMS TEAMS

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ABSTRACT

Teams are used extensively in the field of Information Systems (IS) to perform complex and varied tasks required by IS projects. A solution often touted to the problem of failed IS projects has been diversifying the composition of the team. This diversity of team composition can be either personality type, role or both. Personality type, in this paper, is tested with the Myers-Briggs personality trait instrument, while role diversity is tested with Belbin's SPI instrument. The Francis and Young instrument is used to measure team effectiveness. This paper explores role and personality diversity in IS teams, and finds that diversity in teams does not necessarily contribute to increased effectiveness. However, it is found that teams consisting of people fulfilling the Belbin roles of Chairman, Shaper and Completer-finisher can expect increased effectiveness, which in turn can lead to improved performance.

Key Words: IS teams; Team diversity; Team effectiveness; Belbin; Myers-Briggs

INTRODUCTION

The field of Information Systems (IS) is heavily reliant on teamwork to improve the quality of information systems [26]. Many tasks that must be performed are unique and complex and thus require teams to possess a unique set of skills and knowledge [46]. Often issues around obtaining these skills and knowledge receive the most attention, while soft issues such as team dynamics receive little. The high failure rate of IS projects may indicate that these soft issues should be taken seriously, as clearly effective performance is not dependent on technical skills and knowledge alone [13]. Finding innovative ways of designing IS project development teams to improve teamwork could thus result in more effective teams and thus higher overall performance [30, 46]. Organisations often make use of a personality typing approach, such as those provided by Myers and Briggs or Belbin, to ensure diversity in team make-up that may in turn influence the team's effectiveness and thus have a positive impact on task performance [8].

The importance of teamwork in the IS industry demands that universities prepare students by engaging them in team projects. These team projects benefit students by giving them a glimpse at the day to day life of an IS specialist in industry [40]. And as well as developing their technical skills, students also develop soft skills, such as leadership, presentation and communication [7].

This paper explores how role and personality diversity in teams affects their effectiveness and performance. The student teams tested are all involved in real-life systems development projects, working with

clients from industry. Thus their team experiences should well mimic those encountered in the IS industry. To ensure success, project teams should be carefully formed, well supported and closely monitored. For this reason it is important to understand and investigate team diversity and the impact it has on team effectiveness and performance.

PREVIOUS STUDIES

In IS, teams are an integral part of the systems development process. As such it is important to pay attention to the way teams are selected. DuBrin [14] defines a group as "*a collection of people who interact with one another, are working towards a common purpose, and perceive themselves to be a group*". Katzenbach & Smith [29] go further and define a team as a group that has a high degree of commitment from its members to achieving its goals and given objectives.

Much debate exists around the functioning of teams in a work environment. Various instruments and approaches have been developed to identify characteristics of individual members of a team and the implementation of these to improve the effectiveness of the team [6]. These instruments and approaches can assist in the selection of team members and the forming of teams. These include Belbin's Team Role theory and the Myers-Briggs Type Indicator.

R. Meredith Belbin developed a method which measures how an individual's personality tends to fill each of the different roles in a team [2, 22-23]. The instrument, referred to as the Belbin Team Role Self-Perception Inventory (SPI), consists of a questionnaire with seven sections [38]. After answering the questionnaire the individual's Primary Team-Role and Backup Team-Roles can be determined [17]. Belbin's Team Role SPI helps to create balanced teams, which Gifford et al. [19] believe potentially perform at a higher level. Belbin further argues that team members' sense of commitment grows stronger as they better understand their own roles within the team.

The Myers-Briggs Type Indicator uses a questionnaire to measure an individual's personality. This measurement focuses on four personality types, each of which is divided into two sides. These personality types focus on how individuals direct their energy, how they view or receive information, how they make decisions, and how they organize their environment [19, 27, 31]. The Myers-Briggs Type Indicator is regarded as a highly effective method of determining dominant personality traits within individuals. Research indicates that a team is likely to perform more effectively when it is formed by balancing the four Jungian personality types [27].

In a study by Henry [21], two professors who were interviewed also found personality testing most effective when selecting members for student teams. Gifford et al. [19] found that many student teams with similar skills and experience performed with varying levels of success. The lack of performance was believed to be a result of poor team development, which occurred due to the incompatibility of team members' personalities. Gifford et al. [19] state that it is not enough to simply place several highly skilled programmers and analysts together, but one must consider the "*personality characteristics ... that advance or impair the team effort and ultimately the final outcome of the project team*". There has been some research contradictory to Gifford et al. [19], by Partington & Harris [38] who found that highly diverse teams did not necessarily perform better, and Winter [48] who found little correlation between role diversity and performance in his study on team role diversity in student computer science teams.

The Impact of Team Effectiveness on Performance

A core element in evaluating and measuring teams is effectiveness. The 1998 Advanced Learner's Oxford dictionary defines effectiveness as: "*having the desired effect; producing the intended result… making a strong and pleasing impression*". Gibson et al. [18] describe effectiveness as "*the number of errors made*". Thus, effectiveness can be defined as the product of clear goals and objectives whereby a pleasing impression has been created through competent labour, and where there has been a minimization of the number of errors made during the course of completing an objective. Further, effectiveness can also be understood as the team's ability to perform.

Belbin [4] states that the effectiveness of a team is determined by the extent to which it "*meets its goals, maintains the satisfaction of its members and survives*". Cohen & Bailey [12] add that effectiveness also encompasses the quality of the final product and the degree of enjoyment the members had of the project experience. Campion et al. [8] confirm this by stating that effectiveness incorporates three important criteria, namely: productivity, employee satisfaction and manager

judgement. In using productivity as a measure of effectiveness Campion et al. [8] refer to the collection and the regular monitoring of different measures as indicators of the amount of work completed. In the group project it is expected that teams adhere to strict deadlines of regular deliverables in order to monitor progress and enhance the quality of the final product.

But just knowing what encompasses effective teams is not enough to achieve them; effective management is needed. This is echoed by Hackman [20] who suggests that "*many types of behavior can be productive; therefore, those who create and lead teams should focus on creating the right conditions for them to succeed, rather than trying to manage their behavior*". Thus, creating the correct environment for teams is crucial in providing an atmosphere in which effective teamwork is possible.

In this study, team effectiveness is measured by an instrument adapted from a survey developed by Francis & Young [15]. Through an extensive interviewing process Francis & Young [15] established the main characteristics of effective teams and concurred that "*effective teamwork is the synthesis of apparently contrary forces*". They explain that the effectiveness and well-being of teams should be assessed by the teams themselves and developed a team-review survey to examine 12 key aspects of a team's effectiveness.

In management literature one of the aspects of effectiveness is performance [45]. Therefore performance has a direct relationship to effectiveness [28].

Impact of Team Role Diversity on Effectiveness

The importance of team diversity has been argued by various authors [4. 19, 27]. However, it has been noted by Wynekoop & Walz [49] that, in general, IS systems development teams tend to lack diversity and little research regarding diversity and its effect on performance within IS teams has been conducted.

The literature reviewed seems to indicate that a highly diverse team enhances a team's ability to perform. Belbin's Team Role theory seems to advocate the same idea; the more roles that are filled in a team, i.e. the more diverse the team, the more effective the team will be and the better the team will perform. Belbin's team roles can be matched to the elements of team effectiveness as follows: *Clarity of roles, goals and objectives* is addressed partly by just using Belbin's theory and thus making the team roles known to the members of the team. Also the team's *Chairman* and *Shaper* ensure that the team members know the goals and objectives. *Leadership* of the team is handled by the *Chairman* role. The team's *competence* is managed by the *Chairman*, *Shaper*, *Resource Investigator* and *Monitor/Evaluator*. The *commitment* of the team is fulfilled by all the roles. The communication of the team is usually handled by the *Chairman*, though all the roles need to play a part in this area to ensure good communication. The *skills* in the team pertain to all the roles, though the roles which mainly bring the systems development skills into the team are the *Plant*, *Implementer*, *Completer Finisher* and *Resource Investigator*. *Team support* is catered to by all of the roles, though the *Chairman* and *Team Worker* are more involved on that front than the other roles. *Creativity* falls mainly into the role of the *Plant*.

Three hypotheses are tested in this study, namely:

- Teams comprising diverse roles will perform more effectively
- Teams comprising diverse personality types will perform more effectively
- Teams comprising higher representation of significant roles will perform more effectively

Teams Comprising Diverse Roles will Perform More Effectively

Team effectiveness can be measured through team performance [37, 39]. An individual's performance within a team contributes immensely to the success of the entire team, and the combined effort of each individual ultimately contributes to the entire team's effectiveness [37-39]. Team roles refer to those behavioural characteristics of each team member, and how the interrelationships of the team members influence the progress of the team [16, 33].

Individuals in a team inherently adopt natural roles in a team based on personal preferences and characteristics, and functional roles in a team based on an individual's academic skills and technical knowledge [37-39]. Thus research suggests that a team consisting of diverse natural team roles will perform more effectively than teams consisting of homogenous natural role types [3, 22-23, 37-39, 43].

Belbin's [3] Team Role theory addresses whether there are natural roles that team members

perform in a team and how those natural roles correlate with team performance. Nine diverse team roles, based on research using management teams, were identified by Belbin's [3] SPI.

Belbin's [3] research advocates that a team which incorporates all nine diverse roles is a well balanced team. However, this does not necessarily imply that a team must consist of nine individuals [22, 33, 37]. Individuals in a team may express more than one Belbin role, thus the presence of all nine diverse roles need to be apparent for the team to be successful and effective, irrespective of the team size [3, 22, 33, 37, 39, 43]. Diversity of team roles in teams is extremely important, as this clarifies responsibilities, creates innovation, and provides clear understanding of the tasks and team goals [3, 6, 22, 33, 37, 39, 43].

Furnham et al. [16] and Broucek and Randell [6] have criticised the validity of Belbin's SPI on three accounts namely: the ipsative nature of the scoring, the way the questions are asked, and the lack of empirical underpinning. While it is true that little empirical support of the reliability of Belbin's SPI exists, the Belbin SPI is not a forced choice questionnaire, as in ipsative tests, but rather restricts choice thus minimising artificial responses by offering a variety of responses.

Much research exists with regard to using Belbin's SPI to test the properties of the instrument, but research of the application of Belbin's SPI in the relationship between team roles and team effectiveness is scarce [6, 16, 38]. Although some may argue that using Belbin's SPI does not examine the link between team roles and team effectiveness, the self-perception aspect of Belbin's questionnaire is more valuable and meaningful than psychometrically sound instruments which ultimately require the analysis of the self [6, 16, 38].

Belbin's SPI is a widely used instrument for assessing individual team role preference and also suggests how well various team members interact and collaborate together based on the team's role combinations and behaviours [3, 6, 22, 33, 37, 39, 43]. Subsequently, teams consisting of diverse roles are more effective, and those teams containing the most Belbin roles are higher performing [43].

Teams Comprising Diverse Personality Types will Perform More Effectively

IS teams need to solve complex problems, therefore balance of personality types combined with diversity in skills and knowledge is desirable for effective teams. Subsequently teams should preferably be made up of members with different personality types rather than homogeneous team members [1, 5, 9, 32, 36, 41].

Personality types can be seen as behavioural patterns of individuals: the ways in which they do and say things, how they relate to people, and how they perform certain tasks or process information [34]. IS teams with similar experience and skills performed with variable levels of success [41]. This lack of performance was a result of poor team development, which transpired due to the incompatibility of team members' personalities [41]. Teams should consider the "*personality characteristics…that advance or impair the team effort and ultimately the final outcome of the project team*" [41, p. 603].

However, highly diverse teams did not necessarily perform better [38, 41]. In addition there is no substantial evidence to prove the widely held perception that teams with diverse personality types perform at higher levels than homogeneous teams [34]. Webber [47] found that team heterogeneity is negatively related to team performance as it leads to difficulty in integration and communication. Individuals subconsciously categorize each other into social categories and therefore the team loses the opportunity to benefit from team heterogeneity [11, 44].

Teams should use the Myers-Briggs type theory to understand team members' strengths and weaknesses and how these factors influence team development [25, 41].

MBTI has been extensively tested for reliability and validity and "*has been cited in 4605 publications and is, perhaps, the most widely used assessment instrument in present time*" [34, p. 3]. Although there is no substantial evidence which proves that MBTI is a valid instrument, the popularity of this instrument has not diminished [1, 5, 24, 34].

Teams Comprising Higher Representation of Significant Roles will Perform More Effectively

An effective team is one that is comprised of at least one strong innovative team member in order for that team to perform successfully [23]. Belbin's test can be used to identify those strong characteristics of team members that enhance team performance [23]. Research

exists which found that teams that contain one leader perform better than teams which have no leader or many leaders, and suggests that a team member that may possess a significant role, Shaper, Chairmen or Completer Finisher, enhances team effectiveness [22-23]. Consequently, team effectiveness increases the more significant roles are represented [3, 6, 22, 33, 37, 39, 43].

Table 1: Belbin's Table of Norms

Roles	RI	TW	PL	CH	CF	SP	SH	ME	IM
Low (0-33%)	0-6	0-8	0-4	0-6	0-3	0-8	0-8	0-5	0-6
Average (33-66%)	7-9	9-12	5-8	7-10	4-6	9-11	9-13	6-9	7-11
High (66-85%)	10-11	13-16	9-12	11-13	7-9	12-15	14-17	10-12	12-16
Very High (85-100%)	12-21	17-25	13-29	14-18	10-17	16-20	18-36	13-19	17-23

A significant role is defined as a Belbin role that is considered to be high or very high [37-39]. Belbin created a table of norms, shown in table 1, which indicates which roles are significant by representing the levels of significance numerically [38]. Teams that consist of members with significant roles are often more effective in terms of leadership, competence, motivation, achieving goals, communication, skills, and creativity; all of which are factors in the Francis and Young Team Effectiveness questionnaire [10, 23, 38].

THE SYSTEMS DEVELOPMENT GROUP PROJECT

The third year systems development group project is the main deliverable of the capstone course of the IS major at the University of Cape Town. It has been developed and refined over a period of six years to integrate soft and hard skills. A comprehensive assessment strategy to enhance student learning and aid objective assessment of group performance forms an important component of this course [42]. In addition to the initiation of the group projects and the completion of the analysis and design phases, the first half of the course is also dedicated to a more formal skills transfer approach. During this time lectures, project management workshops, practical programming sessions and sessions on group conflict resolution take place. The second half of the course is dedicated to the building of the product. The project starts in February and has its final hand-in date in September. The project comprises analysis and design documentation deliverables and a final shrink wrapped product. The shrink wrapped product, which includes extensive documentation and the corresponding software application, is finally assessed at a project and a code presentation. The fourth year systems development group project runs in the same vein, although less teaching and management support is offered to the students.

DATA COLLECTION

The research sample consisted of 3rd and 4th year IS students from UCT. These students form self-selected Systems Development project teams, comprising of four to six team members, as part of their IS degree. In total, seventeen teams participated in this research. The questionnaires assessed the effectiveness of a single team in which the participant has worked, and were asked to report on their most recent team experience when answering the questionnaires.

Three questionnaires were used for the purpose of this research. The Belbin SPI questionnaire was used to measure the diversity of team roles in teams. The Myers-Briggs questionnaire consists of 70 research questions, and is used to depict the specific personality types of each team member. The Francis & Young [15] questionnaire was used to measure the effectiveness of each team. The participants of this research were university students and therefore the questionnaire was adapted to only eight question sections from the original twelve sections. Some questions pertaining explicitly to corporate institutions were omitted. Specific questions on technical skills were included under the Skills heading as students are still in the process of developing these skills. Although vital for the success of the project a high level of competency in

these skills cannot always be assumed for all students. In an educational environment mentors play an important role and some questions under the heading Team Support were used to establish the impact of the support of project manager and the sponsor on the effectiveness of the team.

In order to gain insight into the effectiveness of each team involved in the study, a self-assessment survey was distributed to each member of that team. The survey focused on the core criteria, which according to Francis & Young[15] contribute to an effective team. The team's level of effectiveness was then assessed by calculating their mean scores from the questionnaires. A high mean indicates that the team is highly effective, while a low mean indicates inherent weaknesses.

Table 2: Effectiveness Means across Teams

Effectiveness Section	Means
Clarity of Roles	56%
Leadership	83%
Competence	42%
Commitment	52%
Communication	54%
Skills	56%
Team Support	51%
Creativity	69%
Achieving Learning Goals	47%

RESULTS

The results of the three hypotheses tested follow below.

From the effectiveness questionnaire it was found that the leadership section had the highest mean across teams, with a mean of 83%, while the section on creativity followed some distance behind with a mean across teams of 69%. The section with the lowest mean across teams was found to be competence with a mean of 42%. The means across teams for all of the sections can be seen in table 2 below.

Teams Comprising Diverse Roles will Perform More Effectively

The Pearson Correlation coefficient is 0.0057, which is close to zero and suggests no relationship between diversity of roles and team performance. In figure 1 the dependent variable is team performance which lies on the vertical axis, and the independent variable is percentage of team diversification which lies on the horizontal axis. Figure 4 illustrates a flat line with a slope coefficient of 0.0062, which depicts no relationship between diversity of roles and team performance, as the two variables' values do not increase or decrease in the same direction. Thus team performance does not depend on the diversity of a team and is therefore non-linear.

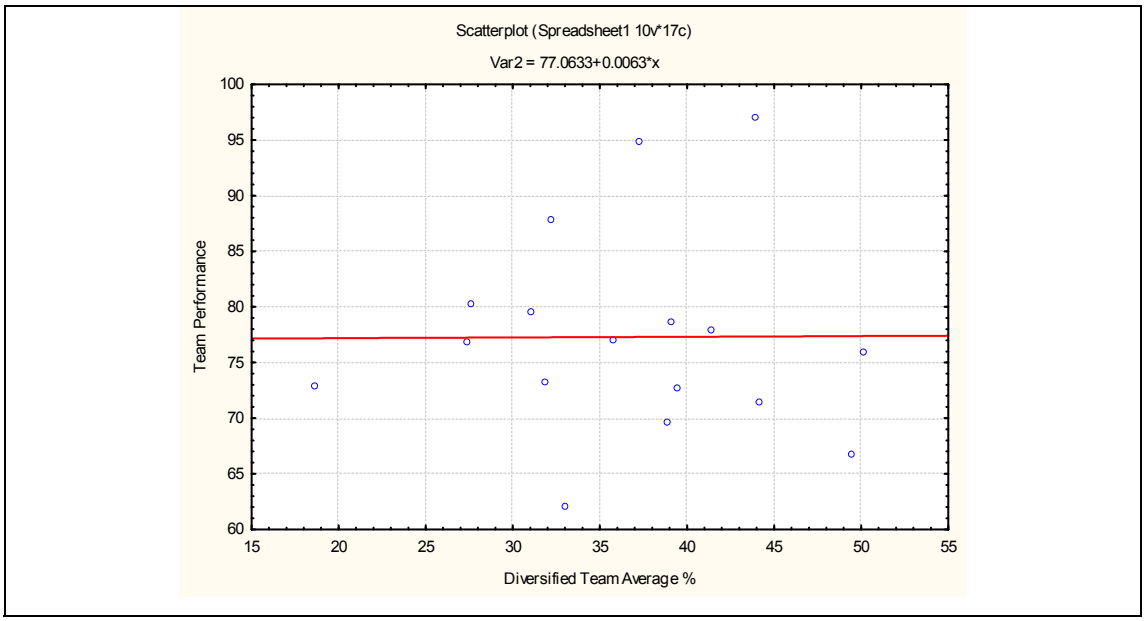

Figure 1: The Relationship between Team Performance and Team Diversity

The R-squared value of the model shows that 24.9% of the variation in performance results is explained by the variation of diversified teams. The remaining 74.1% is unexplained and is associated with events and influences of each individual within the team. Thus the strength of the relationship between diverse team roles and performance is very weak, as R-square is extremely low.

The p-value is very large (0.9827) which is greater than 10%. Thus there is no evidence to infer that a relationship between team role diversity and team performance exists.

Table 3: Belbin Role Diversity and Performance Scores

Rank	Team	Diversity (%)	Performance (%)
1	Team 5	50.14	75.95
2	Team 11	49.50	66.76
3	Team 9	44.18	71.35
4	Team 15	44.01	97.00
5	Team 13	41.38	77.84
6	Team 8	39.53	72.57
7	Team 10	39.10	78.65
8	Team 14	38.94	69.59
9	Team 2	37.33	94.86
10	Team 17	35.84	77.00
11	Team 16	33.10	62.00
12	Team 4	32.25	87.84
13	Team 12	31.93	73.24
14	Team 3	31.10	79.46
15	Team 6	27.62	80.27
16	Team 7	27.40	76.76
17	Team 1	18.65	72.84

The diversity in roles of the teams ranged between mediocre (50.14%) and low (18.65%); 100% indicating a perfectly role diversified team. In table 3 it can be seen that most of the least diverse teams performed well, contrary to Belbin's Team Role Theory [3]. The statistical analysis performed contradicts Belbin's Team Role Theory and illustrates through the Pearson correlation and multiple regression that no relationship exists between diversity of team roles and team performance.

Teams Comprising Diverse Personality Types will Perform More Effectively

With a Pearson Coefficient of -0.2045 it is clear that there is no strong relationship between team personality diversity and team performance, since the value is close to zero. Also, since the P (T<=t) two tail is equal to 0.431 it can be concluded that there is insufficient evidence to infer that there is a monotonic relationship between teams that include diverse personality types and team performance.

The model has an R-squared value of 0.04 which indicates that only 4% of the variation in performance is explained by the diverse personality types. In addition, with such a low value for R-Square it is clear that the model does not fit the data very well.

The p-value is 0.431 and is thus greater than 10%. This means that there is no evidence to infer that a relationship exists between the diversity of personality types and team performance.

Table 4: MBTI Personality Diversity and Performance Scores

Rank	Team	Diversity	Performance
1	Team 11	35.43	66.76
2	Team 1	34.62	72.84
3	Team 7	34.62	76.76
4	Team 13	34.62	77.84
5	Team 10	32.53	78.65
6	Team 16	31.91	62.00
7	Team 17	31.69	77.00
8	Team 12	31.58	73.24
9	Team 6	29.61	80.27
10	Team 14	29.13	69.59
11	Team 2	28.39	94.86
12	Team 5	27.57	75.95
13	Team 15	26.87	97.00
14	Team 3	23.62	79.46
15	Team 8	23.26	72.57
16	Team 4	17.65	87.84
17	Team 9	11.39	71.35

In Table 4 it can be noted that the diversity of personality types within each team were mostly homogenous, as is indicated by the low MBTI personality diversity scores (between 35.43% and 11.39%); 100% indicating a perfectly diversified team. Again it was found that the least diverse teams performed better than those that were more diverse. This finding contradicts the various authors who found that diversity of personality types positively affects team performance [1, 5, 9, 19, 32, 36, 41]. This contradiction is illustrated through the Pearson Correlation test performed which shows no direct linear positive relationship exists between diversity of personality types and team performance. The rejection of the alternate hypotheses (p>10%) can be attributed to factors such as difficulty in communication and integration [47], as well as team members categorizing each other into social categories [11, 44].

Teams Comprising Higher Representation of Significant Roles will Perform More Effectively

A strong negative relationship is illustrated in Figure 2 between the number of Specialists in a single team and their impact on team effectiveness. In addition the covariance (-0.4727) and coefficient of correlation (-0.3864) confirm that a strong negative relationship exists, whereby as the number of Specialists in a team increases, team effectiveness on average decreases.

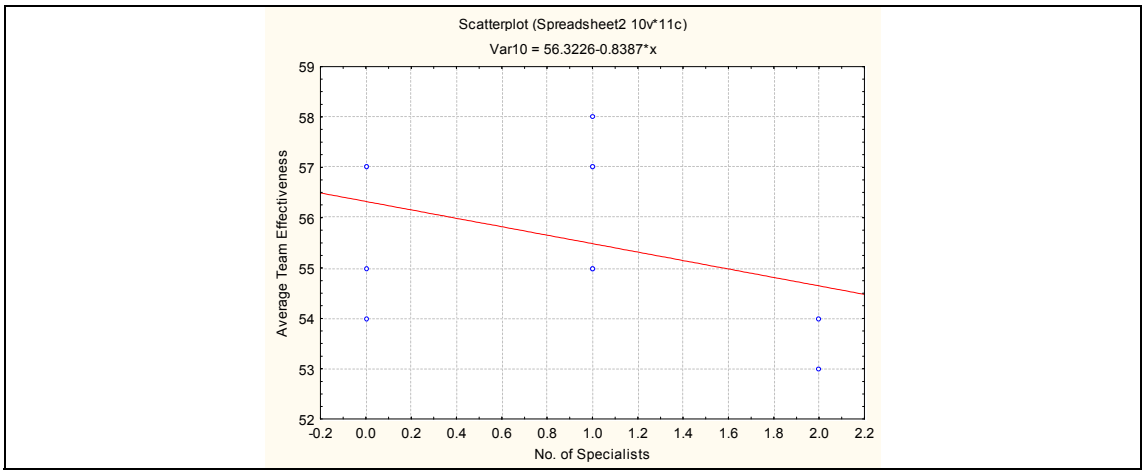

Figure 2: The Relationship between the number of Specialists and Team Effectiveness

The relationship between the number of Team Workers and average team effectiveness, shown in figure 3, illustrates that almost no linear relationship exists. The covariance is -0.1182, and the coefficient of correlation is -0.1389, which confirms that almost no linear relationship exists as the numbers are close to zero. Subsequently the number of Team Workers in a team does not impact strongly on the team's effectiveness.

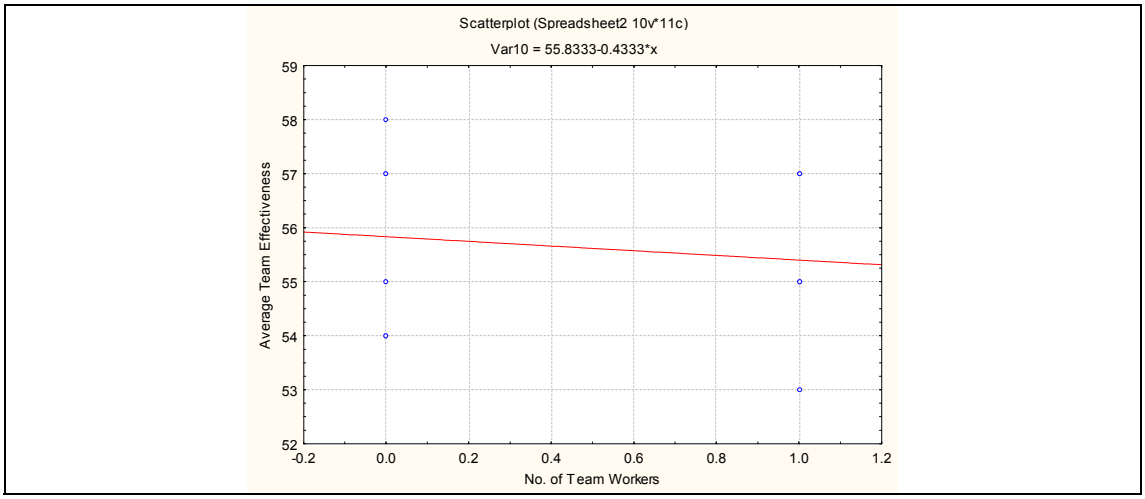

Figure 3: The Relationship between the Number of Team Workers and Team Effectiveness

A strong positive relationship is illustrated in figure 4 between the number of Shapers in a team and the team's effectiveness. In addition the covariance is 0.6909, and the coefficient of correlation is 0.4688, confirm that a strong positive relationship exists, whereby as the number of Shapers in a team increases, team effectiveness on average increases.

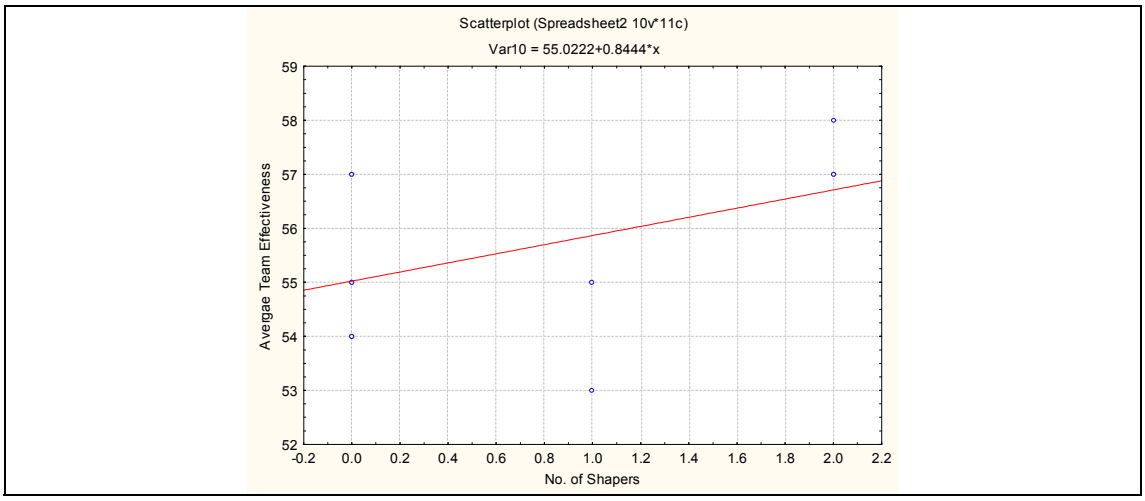

Figure 4: The Relationship between the Number of Shapers and Team Effectiveness

A strong positive relationship is illustrated in figure 5 between the number of Chairmen in a team and the team's effectiveness. In addition the covariance (0.3090) and the coefficient of correlation (0.4061) confirm that a strong positive relationship exists, whereby as number of Chairmen in a team increases, team effectiveness on average increases.

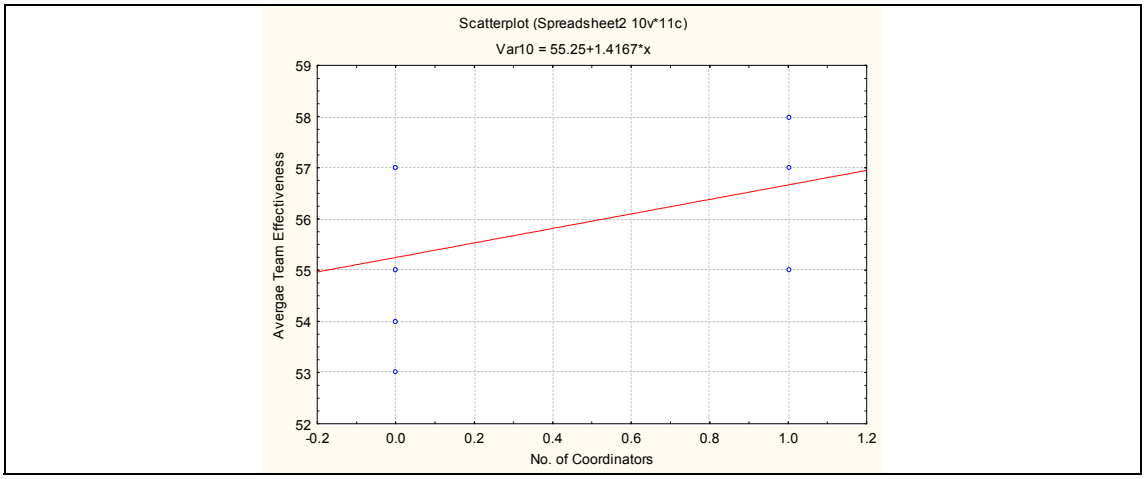

Figure 5: The Relationship between the Number of Chairmen and Team Effectiveness

A strong positive relationship is illustrated in figure 6 between the number of Completer Finishers in a team and the team's effectiveness. In addition the covariance is 0.4727 and the coefficient of correlation is 0.3865, which confirm that a positive relationship exists. Thus as the number of Completer Finishers in a team increases, so does team effectiveness.

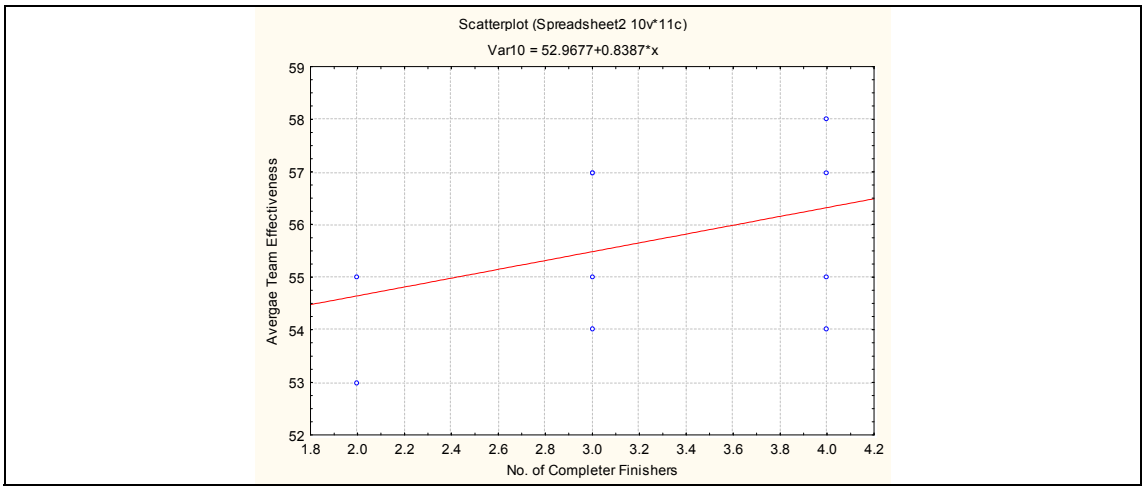

Figure 6: The Relationship between the Number of Completer Finishers and Team Effectiveness

It was also found that generally Resource Investigators, Plants, Monitor/Evaluators, and Implementers have relatively positive relationships with team effectiveness.

The R-squared of the model is 99.97%, which means that 99.97% of the variation in team effectiveness is explained by the nine Belbin team roles. All the p-values of the team roles are close to zero which suggests that there is overwhelming evidence that teams with a higher representation of significant team roles do perform more effectively.

Through the testing of this third hypothesis, three main findings were made. Firstly, through the correlation tests performed results were presented which confirmed that Completer Finishers, Chairmen, and Shapers are necessary for optimal team effectiveness. The literature reveals that these specific roles are leadership type roles as they possess leadership characteristics, such as completing tasks at hand, clarifying goals, chairing meetings, and promoting decision making. Thus the deduction that these specific team roles are necessary for optimal team effectiveness seems sound and fair.

Secondly, the correlation tests performed confirmed that there is a negative relationship between the Specialist role type and team effectiveness. The literature reveals that it is not necessary to include a Specialist in a team, as that specific role does not increase team effectiveness [3, 22, 33, 37, 38, 43]. Senior [43] suggests further that Specialists do not make large contributions to team tasks as they "*dwell on technicalities*". Thus as more Specialists are added to a team, so decreases the effectiveness of that team.

Thirdly, no clear relationship was found between the number of Team Workers in a team and the team's effectiveness. This can be attributed to the fact that Team Workers do not specifically add to team effectiveness through leadership, competence, achieving goals and creativity as they primarily tend to avert friction and are mild by nature [33, 43].

CONCLUSION

Past studies have shown that diversity in teams, both through roles and personality types, increases performance [1, 3, 5, 9, 19, 32, 36-39, 41, 43]. However,

this study shows that a team consisting of either diverse natural roles or diverse personality types does not, as a result, contribute to the team's performance. Although it was found that a team which consists of at least one member who has a significantly strong natural role can increase the team's performance. These Belbin team roles are notably the Chairman, Shaper and Completer Finisher.

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