Learning and development premise in entrepreneurial orientation for employees in an Indian context

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World over post recession organisations are continuing to explore and focus on newer methods and approaches to harness the potential of employees within the organisation and ultimately towards organisational growth per se by the dictum of intrapreneurship. Entrepreneurial orientation (EO) has emerged as an important facet towards strategic management and of entrepreneurship literature for the past two decades. In the Indian context, the recession was well withered and progress and growth in organisations were imminent in various sectors. This paper explores the premise of Learning and Development (L and D) in Entrepreneurial Orientation for Employees (EOE) as a unique and novel approach in employee development. The results are drawn based on the pre-test scores in an Indian firm in the services sector and prior to administering EOE Training. The proposed study examines the significance of Learning and Development in EOE. The EOE approach will definitely foray ample scope for future researchers in this new and fast emerging field of entrepreneurship research. By experimenting and comparing through EOE training, the growth trajectory in employees by this novel approach of EOE will definitely augment growth perspectives in organisation. Ultimately, this in turn will facilitate growth in various other sectors.

Key words: Entrepreneur, entrepreneurship, entrepreneurial orientation (EO), intrapreneurship, entrepreneurial orientation for employees (EOE), learning and development (L and D), entrepreneurial orientation for employees (EOE) and training, organizational development.

INTRODUCTION

The organisations in each and every part of the globe are exploring various methods for developing entrepreneurially the employee potential. Organisations need to be entrepreneurial to circumvent challenges in such a dynamic environment of business by improvising the skills, abilities, knowledge attitude of the employees. This paper attempts to explore learning and development (L and D) premise in entrepreneurial orientation for employees (EOE) in organisations. The scenario necessitates equipping the employees with the entrepreneurial skills essential in the achievement of personal/organisational objectives. EOE aims to develop a firm specific entrepreneurial attitude to perform and be productive at work.

LITERATURE REVIEW

De Coning (1992) says that, the successful introduction of intrapreneurship into an organisation requires a holistic systems approach. Such an approach should make provision for both the organisational and personal implications of intrapreneurship. In other words, top management, the organization and employees should all be involved in
fostering the intrapreneurial spirit.

Morgan (1997) maintains that, now the organisations not only have to plan and execute tasks in an efficient and rational way, but also have to face the challenge of constant learning and, perhaps even more importantly, of learning to learn.

Lumpkin and Dess (1996) are of the view that, EO as a concept and approach refers to the process of behavior influences, decision-making styles and practices of a firm’s management and employees that leads to superior firm performance. The term EO is used to refer to the set of personal psychological traits, values, attributes and attitudes strongly associated with a motivation to engage in entrepreneurial activities as per David McClelland.

Krishnakumar et al. (2009) have invented and extended the concept of EO for employees with newer dimensions and made substantial inroads through this approach. EOE is a novel and unique approach for enhancing and ensuring employee development in particular and organisational development at large through EOE training, by experimentation.

Miller (1983) considers that an entrepreneurial firm is one that engages in product market innovation, undertakes risky ventures and is the first firm to come up with ‘proactive’ innovations ahead of competitors. Following Miller's definition, numerous scholars have adopted the term ‘entrepreneurial orientation’ to describe a fairly consistent set of related activities or processes (Ginsberg, 1985; Morris and Paul, 1987). The term ‘entrepreneurial orientation’ has been used to refer to the strategy-making processes and styles adopted by firms in their entrepreneurial activities (Lumpkin and Dess, 1996, 2001). In line with previous research, the proposed study will define entrepreneurial orientation for employees as an approach towards development of employees entrepreneurially by EOE training for the firm’s strategic orientation, capturing the specific entrepreneurial characteristics among the employees in harnessing the aspects of decision-making styles, methods and practices.

Morris and Paul (1987) define EO as the propensity of a company’s top management to take risky action, be innovative and proactive. Using this definition and prior literature, entrepreneurship researchers have used the term entrepreneurial orientation to describe a ‘fairly consistent set of related activities or processes’ (Lumpkin and Dess, 1996; Miles and Arnold, 1991; Morris and Paul, 1987; Smart and Conant, 1994).

Hart (1991, 1992) quotes that when four factors of participative, entrepreneurial, adaptive and simplicity emerged from the strategy making process (SMP) construct. Furthermore, Dess et al. (1997) adopted the SMP into entrepreneurial strategy making (ESM) construct reaffirm that entrepreneurship variables were representation of some of the strategic variables.

Lumpkin and Dess (1996) argued that the relationship between EO and firm performance is context specific and introduces the integrative framework for exploring this relationship between EO and firm performance.

Risk taking refers to a tendency to take bold steps such as venturing into unknown new markets, committing a large portion of firm resources to ventures with uncertain outcomes and/or borrowing heavily (Lumpkin and Dess, 2001)

Hart (1991) is of the view that a set of approaches (or modes) that is presented as are complementary to each other, is called a typology of strategy-making processes (SMP). Also that he finds in a study of 916 firms of all sizes and industry sectors that the adaptive (transactive) mode of strategy-making is more highly associated with firm performance than the rational and generative (intrapreneurial) modes.

Hart (1992) maintains that, Strategy-making occurs mainly from the bottom of the firm upwards, or in the case of organic firms, through teamwork. Participative strategy-making is not indicative of rationality, but rather of an informal but inclusive decision-making process. While a participative mode depends on a high level of involvement in strategy-making, often through political processes, the symbolic mode relies on a strong organizational culture, defined by a firm's vision, basic philosophy and values. In a symbolic mode, vision and culture provide employees with a sense of how things are done in the firm, and strategy therefore follows culture. The intrapreneurial mode identifies one way in which employees can be involved in strategy-making process of the firms. In this mode employees generate ideas, and therefore influence the strategic direction of the firm.

Wiklund (1999) maintains that, EO contributes to performance, defined as ‘a compound measure incorporating dimensions of growth as well as financial performance’ and therefore ‘risk-taking, innovativeness and proactiveness keep small firms ahead of competitors.’ Competitive advantage derived from EO is also asserted to be sustainable and therefore worthy of the investment by small firms.

Numerous researchers have adopted an approach based on Miller's (1983) original conceptualisation (Covin and Slevin, 1989; Ginsberg, 1985; Morris and Paul, 1987; Naman and Slevin, 1993; Schaefer, 1990). For example, Covin and Slevin (1989) investigated the performance of entrepreneurial firms in hostile and benign environments. However, in their study of 161 small manufacturers, "entrepreneurial strategic posture" was measured using a scale that ranked firms as entrepreneurial if they were innovative, risk taking, and proactive.

Two other dimensions are important aspects of an entrepreneurial orientation. The first is competitive aggressiveness, which captures the distinct idea of "beating competitors to the punch," suggested by Miller's (1983) definition of an entrepreneurial firm. It refers to the type of intensity and head-to-head posturing that new entrants often need to compete with existing rivals. Hence, Miller, Covin and Slevin argue that the dimensions of EO should covary, that is, a firm should score equally...
on all dimensions; if they score highly on one dimension, they will naturally score highly on the others.

Manikandan and Anwer (2005) have discussed how perceptible changes have already come, with organisations world over realising the need for training and retraining people.

Jack (2002) gave a bird’s eye view on the new training trends and the advances in the training technology underlining the fact technological advances have the potential to change the delivery of training. According to him, companies will transform into learning organisations. Training in a learning organisation is integral to work; a byproduct of work rather than something done in isolation. The challenge for training in learning organisations is to find ways to capture and share knowledge systematically as work occurs and changes. The demand for training will continue to rise and this training will need to be delivered on-demand and in a format that will allow individuals to proceed at their own schedule. The training for employees has to be provided in the same changing pace to keep the employees satisfied and involved.

Mattijs et al. (2007) have analysed the relationship between level of co-operation of employees and sponsored training and promotion practices on willingness of employees to work overtime. Much of the research in the human resource management focuses on outcomes such as satisfaction, commitment and turnover. Even though these aspects are important, much of the literature does not pay attention to co-operative behaviors of employees towards the organisation, which may improve organisational performance. The authors believe that, investing in training and promotion are two central rewards that an organisation can provide in order to enhance performance of employees. The mutual investment model argues that when employers invest more in the social exchange relationship between them and their employees, their employees will show more effort. Multilevel analysis show that employees are more willing to work when their employer has provided for training, when the employee recently was promoted, when the supervisor was supportive in the past and when co-workers approve of working and behave similarly.

Todd (2002) developed an integrative model of involvement in continuous learning. Given the complexity of the problem of promoting a Learning and Development orientation among employees, a parsimonious integration of scattered concepts, theories and research was used to explain differences in Employee Learning and Development Orientation (ELDO). The model re-conceptualizes and integrates concepts such as growth needs, personal mastery and development orientation within organisational settings, and it provides ideas regarding how future research should pursue a new understanding of these concepts. Also, the model describes how forced participation in development activity may not result in optimal results. Another research issue that comes out of the ELDO model is how to address and understand demographic differences (for example, race, gender and age) in learning and development behavior. When employees are striving to achieve conceptions of what they might be, defined in terms of specific achievements on a relevant task rather than in terms of outperforming others, ELDO might be enhanced and performance goals can be reached.

The association of such values with improved firm performance in today’s business environments, where product and business model life cycles are shortened (Hamel, 2000), and where the future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities (Wiklund and Shepherd, 2005).

Wiklund (1999), Zahra (1991) and Zahra and Covin (1995), in their studies found that firms who demonstrate more entrepreneurial strategic orientation are performing better than the average company.

From these definitions and previous research works done it is very clear that EO refers to the processes, practices and decision-making activities that lead to new entry by entrepreneurs. EO deals with orienting the entrepreneurs and firms towards best business practices.

**Learning and development**

Burgelman (1983), opines that an entrepreneurial orientation promotes initiative and what Birkinshaw (1997), called “dispersed” entrepreneurship, which is the involvement of multiple management levels in the formulation and implementation of entrepreneurial strategies.

Stevenson and Jarillo (1990), maintains that an entrepreneurial orientation is not created or imposed by top management, but reflects the strategic posture as exhibited by multiple layers of management. Learning and development will be a very significant factor and will differ from training and development. As training and development necessarily require a trainer or a coach where in learning and development, it can be that, learning by self facilitation shall not be essential and at work setting after EOE training, and this will be an important and noteworthy factor in respect of this EOE approach. This will definitely contribute to the employee’s efficiency and performance measurement towards organisational development. The researcher is of the firm view that, the learning and development component will facilitate EOE training and for assessing the inputs based on: (a) determination of success for organisations, (b) assessment of objectives attainment, (c) make system wide improvements, (d) ensure quality, (e) ensure accountability, (f) meet external requirements, (g) account for activity, (h) assess value or merit, (i) assess risk, (k) justify investments, (l) facilitate decisions whether to continue/discontinue the activity, (m) ensure appropriateness and alignment, (n) identify strengths and weaknesses. The researchers may explore other inputs
in the future. We hence, argue that learning development is an appropriate premise in the EOE approach with the basic difference in training and development with that of learning of development with the former requiring a professional trainer and whereas in the latter it not necessarily required.

Berman et al. (2002), says that tacit knowledge is the most important asset for both organisations and individuals. Conner and Prahalad (1996) views that, based on the resource-based view, tacit knowledge, rather than explicit knowledge, resides in organisational members and is a critical resource that is difficult to imitate and can lead to competitive advantages. Employees will demonstrate their abilities after an EOE training in their own ways, in the work setting. Tacit knowledge may encompass the concepts of skill (Berman et al., 2002) and practical know-how (Koskinen et al., 2003).

Mulder (1997) had maintained that, teaching should involve increasing complexity, starting out with creating awareness and moving towards the application of entrepreneurial qualities in an experimental setting. Cotton (1993) opines that, although it is important to develop an environment that is conducive to entrepreneurship in general, it may be that different entrepreneurial qualities require different teaching methods and a different educational environment. In this context initiative can be stimulated among the students by facilitating rather than directing the learning process and persistence can be fostered by ensuring that pupils are aware of the fact that they control the learning process.

Bock et al. (2005) argue that an individual will not share his/her knowledge when the knowledge is regarded as valuable or important. Thus, tacit knowledge sharing can only be facilitated by forms of intrinsic motivation such as sociability and friendship (Osterloh and Frey, 2000). Hence, learning and development organising can develop the relationship between businesses and their resources, as we have incorporated in the EOE training itself.

Marco van et al. (2005) studied, as to when and how small business starters learn. It specifies the situations that offer learning opportunities, as well as the learning behaviours that small business starters can employ in order to learn from these opportunities. In a cross-sectional, quantitative study of recently started small business founders, learning opportunities and learning behaviours are related to three outcome measures: a performance outcome (goal achievement), a personal growth outcome (skill development), and an affective evaluation outcome (satisfaction). The results show the importance of learning opportunities and learning behaviours in influencing these outcome variables. Luke and Jason (2011) examined the entrepreneurial learning in key learning processes. They and explored on these processes and felt that it might be simulated in a student-learning environment and highlights the role of emotional exposure, situated learning, action-orientation and discontinuity when seeking to simulate contexts similar to those in which entrepreneurs learn, demonstrates a range of learning benefits linked to experiential learning. Learning orientation significantly affects innovativeness, and sequentially innovativeness has a significant effect on performance. The most notable of these is that learning orientation performs a mediating function in the relationships between market orientation and entrepreneurial orientation and innovativeness to investigate the relationships between drivers of innovativeness and the mediation effects of learning orientation.

Wiklund and Shepherd (2003) point out that entrepreneurial orientation enhances the relationship between knowledge-based resources, such as marketing capabilities and technology capabilities, and small business performance. However, the ability of highly entrepreneurially oriented firms to achieve better performance will be limited if they have inadequate resources to utilize (Chen et al., 2007). Research has suggested that risk-oriented firms tend to seek new resources (Hughes and Morgan, 2007; Lumpkin and Dess, 1996).

Entrepreneurial orientation may contribute to performance by enhancing a firm’s capacity to identify innovative opportunities offering potentially large returns, target premium market segments and secure first-mover advantage (Lumpkin and Dess, 1996; Wiklund and Shepherd, 2005). Nevertheless, other research has shown that firms are often unsuccessful in translating an entrepreneurial orientation into better performance due to a lack of strategic resources (Hitt et al., 2001). Hence we attempted to include learning and development in the EOE training in knowing the changes through EOE training on employees in an organisation.

Halit (2006) identified the nomological relations among market-orientation, learning-orientation and innovativeness in medium-sized business (SMEs) of developing countries. The survey among managers from small-sized-firms operating in Turkey show that firm innovativeness positively affects firm performance; firm learning-orientation positively influences firm innovativeness; firm market-orientation positively impacts firm learning orientation; firm learning-orientation mediates the relationship between firm market-orientation and firm innovativeness; and firm market-orientation indirectly impacts firm performance via firm innovativeness and learning.

Nihat and John (2011) have examined the relationships among knowledge-based resources, market orientation, learning orientation and innovation performance through a study using data collected from a survey of 135 firms operating in different industries in Turkey. The empirical study provides evidence on the existing relationship among these variables. Findings indicate that knowledge-based resources, learning orientation and market orientation have an important affect on innovation performance.

Jaehoon et al. (2010) studied the relationships between drivers of innovativeness and the mediation effects of
learning orientation. They are of the view that market orientation and entrepreneurial orientation significantly influences learning orientation, as learning orientation performs a mediating function in the relationships between market orientation and entrepreneurial orientation and innovativeness. Managers with entrepreneurial orientation and market orientation should place much emphasis on learning orientation in order to boost innovativeness and ultimately achieve performance.

METHODOLOGY

The research design was descriptive in nature. The sampling technique used for the present study is purposive sampling. Purposive sampling means deliberate selection of samples for the study. Purposive sampling starts with a purpose in mind and the sample is thus selected to include people of interest and exclude those who do not suit the purpose. This sampling method is most suitable for a pre-post experimental study. Since the study involves intervention, a company is chosen in the services sector, from the sample population. The study was conducted by the end of 2010 in an Information Technology (IT) Information Technology Enabled Services (ITES) multinational company in the services sector with multiple verticals based at Chennai, India.

Samples were selected based on their potential after various level discussion with the top level management on the potentiality of the employees and thereby sample for the study. A total sample size of 144 employees were chosen. Refer Appendix 1 as in the Table 1, 2 and 3 about the grouping, designation and gender pertaining to the employees sample. The company employees where contacted by the direct interview method and where given necessary briefing about the purpose and objective of the study prior to administering the questionnaire.

Krishnakumar et al. (2009) have identified the 10 factors for EOE. Based on the discussion the 10 factors namely achievement motivation, affiliation need, creativity, risk-taking propensity, learning and development, training and development, locus of control, tolerance for ambiguity, decision making and commitment. These factors were considered as important factors that contribute to enhance entrepreneurial orientation among the employees.

The EO inventory developed by Rao (1985) is derived for developing the EOE questionnaire. The data was captured through the EOE questionnaire, which is a validated instrument. The reliability coefficient Cronbach alpha for the questionnaire was 0.75.

The tool was administered with the following instructions to the respondents. "Below are certain statements that are related to your styles in reacting/responding/understanding a situation. There is no best style, because situation determines what style is best. However, based on the experiences, every individual will have their own way of looking at things and thereby responding to the situation. You are kindly requested to give your honest responses to the situations. Please do not omit any statements. In each pair of statements, you may agree with one statement more than the other. The instrument contained 77 statements each, which have a pair of sub-statements namely 1(a) and 1(b) and so on. The instructions were given about filling up the questionnaire like: "In each pair, the respondents may agree with one statement more than the other. There are 5 points to distribute between the two statements. Distribute the 5 points in any of the following combinations: 0-5, 1-4, 2-3, 5-0. If you agree slightly more with statement ‘a’ than with statement ‘b’, then assign 3 points to ‘a’ and 2 points to ‘b’. If you agree completely with ‘a’ but do not agree with ‘b’, assign 5 points to ‘a’ and 0 points to ‘b’. You may not divide your points equally (that is, 2.5) between the two choices. You must choose one statement with which you agree more and then distribute the points. When I hear about new things:

a) I listen to them carefully and ask a lot of questions;
b) I listen to them carefully and would suggest my viewpoints.

RESULTS

Itemized rating scale was used as the scaling technique. This scaling technique was preferred to rating scale because this will give the respondents clarity on what they are and how precisely they can evaluate these statements. Usually in the itemized rating scale, we have number of statements ordered progressively in more or less in terms of some aspect. However for the present study it was proposed for a polarity in the statement using itemized rating scale.

Since the questionnaire uses the polarity scale, we have selected the best statement out of the two for measuring pre-EOE scores. The range of maximum scores (M) and minimum (m) for the EOE variables are:
1) achievement motivation: M = 40 and m = 0 ;2) affiliation need: M = 45, m = 0; 3) creativity: M = 40, m = 0; 4) risk-taking propensity: M = 35, m = 0; 5) learning and development: M = 40, m = 0; 6) training and development: M = 25, m = 0; 7) locus of control: M = 25, m = 0; 8) Tolerance for ambiguity: M = 50, m = 0; 9) decision making: M = 35, m = 0) and 10) commitment: M = 50, m = 0.

The classification of scores were done for each of the variables as “High” and “Low” for pre-EOE scores. 50% above and below the indicated maximum range, the coding was done. The employees’ pre EOE scores are obtained by summing all the ten scores of the variables indicated as above. The L and D pre scores are obtained by summing the items which are related to the variable L and D in the EOE questionnaire. Using SPSS software the results were analysed in order to attain the study objective on the formulated hypothesis:

Null Hypothesis (H0): no significant difference between employees learning and development pre scores with that of the employees EOE pre scores.

Alternate Hypothesis (H1): there is a significant difference between employees learning and development pre scores with that of the employees EOE pre scores. Statistical tests used for the study are, regression analysis, one way analysis of variance (ANOVA) and Chi-square test (x²). The statistical tools used for the study are summarized and shown in the Appendix 1, Tables 4, 5, 6 and 7 respectively.

The authors substantiate their views and offer conclusion based on this research to accept the Alternate Hypothesis and reject the Null Hypothesis. That is, it can be concluded that there is a significant difference between employees L and D pre scores with that of the employees overall EOE pre scores. Hence L and D is a very significant factor for further training. The employees
using the module developed for training the employees in the session meant for L and D, during the EOE training
Refer Appendix 1 in Table1, 2, 3, 4, 5, 6 and 7)

CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

The paper hence firmly suggests that L and D premise in the EOE is suitably identified as the facilitator which enhances performance of employees towards a new higher level orientation, leading to superior organizational growth. Future research could investigate in newer paradigms in newer geographies, other industrial sectors by altering the sample size and so on.

This will facilitate the future researchers with more newer insights to explore and understand the extent to which the positive relationship between L and D in EOE where in entrepreneurial characteristics among the organizational human resources, be accounted in the human capital growth in developing the employee potential.

In dynamic environments where opportunities are abundant, firms with a greater entrepreneurial orientation perform better because they tend to pursue new market opportunities before their competitors do. Further, barriers or uncertainty towards resource acquisition trough EOE can be examined with a high degree of unpredictability in customer demand and competitors' capabilities as the employees in the firm are entrepreneurially oriented. Research has shown that environmental dynamism affect entrepreneurial orienta-tion on resource acquisition (Lichtenstein and Brush, 2001).

Thus, learning and development here was the frame of reference in the Indian post recessionary environment.

This will have an effect on the amount of resources needed, as well as on how those resources are acquired and leveraged. Such an initiative will augment the firm resources internally and entrepreneurial efforts by EOE training can harness the employee potential in order to render them highly efficient and hence to be professionally effective.

The benefits of this prospective EOE initiative, will definitely accelerate individual/employee growth this in turn will definitely augment organizational growth. Hence the authors strongly conclude that the approach of EOE will remain as a permanently significant and purposefully essential benchmark among organizations which vouches for perpetual and successful growth trajectories.

REFERENCES


Mattis L, Andreas F, Karin S, Jacques S (2007). Encouraging employees to co-operate: the effects of sponsored training and
APPENDIX 1

Table 1. Showing the employee groups pre EOE training.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of the employee group</th>
<th>Sample size (N = 144)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experimental group</td>
<td>62</td>
<td>43.1</td>
</tr>
<tr>
<td>2</td>
<td>Control group</td>
<td>82</td>
<td>56.9</td>
</tr>
</tbody>
</table>

From the above Table 1 which shows the composition of the sample drawn prior to imparting the EOE Training, that is, pre EOE training, which consisted of experimental group (43.1%) and that of the control group (56.9%). The sample from the experimental group will be chosen for the EOE training experimentation, whereas the control group will not be involved in the EOE training, which is for observation and for the comparison purposes. The post EOE training sample size was 62 out of 144.

Table 2. Showing the designation of employees pre EOE training.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Classification by designation</th>
<th>Sample size (N = 144)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Executives</td>
<td>75</td>
<td>52.1</td>
</tr>
<tr>
<td>2</td>
<td>Managers</td>
<td>69</td>
<td>47.9</td>
</tr>
</tbody>
</table>

The above Table 2, it indicates the range of designation of the employees by classification as executives and managers respectively consisting of 52.1 and 47.9% respectively, each in the order of mention. It can also be inferred that the executives in the total sample were more than the managers available for the EOE training experimentation. Such a classification will be useful for further analysis and also in imparting the EOE training. The analysis of a sample size based on composition of designation will vary in case of any other study or a sample so chosen based on the purpose.

Table 3. Showing the Gender of the employees’ pre EOE training.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Gender</th>
<th>Sample size (N = 144)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>103</td>
<td>71.5</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>41</td>
<td>28.5</td>
</tr>
</tbody>
</table>

From, the above Table 3, it specifies the gender consistency among the employees, wherein male employees were 103 out of the sample 144 constituting to the majority of 71.5%. Female employees were 41 out of the sample 144 and constituted to the extent of 28.5%. It can be inferred that by the gender classification in the pre EOE training phase, the majority where male employees when compared to the female employees in the total sample available for the EOE training experimentation.

Table 4. Showing the correlation with the EOE pre scores within the employee groups.

<table>
<thead>
<tr>
<th>Result</th>
<th>Pearson correlation</th>
<th>Pre scores entrepreneurial orientation for employees (EOE)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.540 (** )</td>
<td>Significant</td>
<td>N 0.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed). From the Table 4, we can conclude on the positive correlation between both L and D and EOE pre scores. The interpretation is significant and it indicates that the variable L and D contributes more significantly and positively to the EOE score on an individual basis. This is key to the EOE training experimentation to initiate the study after the pre EOE scores are compared among all other variables which contribute to the overall EOE scores.
Table 5. showing Chi-square test statistic ab.

<table>
<thead>
<tr>
<th>Test statistic (Sample N =144)</th>
<th>Pre scores</th>
<th>Learning and development pre scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>(χ²) Chi-square test scores</td>
<td>0.503</td>
<td>14.144</td>
</tr>
<tr>
<td>Degrees of freedom (df)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Asymptotic significance</td>
<td>0.973</td>
<td>0.007</td>
</tr>
</tbody>
</table>

a Krushkal Walis test; b Grouping variable: Department. From the Table 5, we can ascertain the significant relationship by grouping variable with respect to department. By this classification of the employees in the pre test EOE the significance in the relationship with L and D and EOE is evident among the employees from various departments who have participate in the EOE survey. It can be considered for identification of any further relationship in the comparison by post test EOE training experimentation also.

Table 6. Showing ANOVA in the employee group EOE pre score.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of the employee group</th>
<th>Sample size (N = 144)</th>
<th>Mean difference</th>
<th>Standard error difference</th>
<th>DF degree of freedom</th>
<th>Levene’s test for equality of variance</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experimental group</td>
<td>Equal variances</td>
<td>-0.41</td>
<td>2.675</td>
<td>142</td>
<td>0.155</td>
<td>0.018</td>
</tr>
<tr>
<td></td>
<td>Equal variances assumed</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.8944</td>
</tr>
<tr>
<td>2</td>
<td>Control group</td>
<td>Equal variances</td>
<td>-0.41</td>
<td>2.592</td>
<td>78.822</td>
<td>0.160</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7. Showing ANOVA in the employee group L and D pre score.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of the employee group</th>
<th>Sample size (N = 144)</th>
<th>Mean difference</th>
<th>Standard error difference</th>
<th>DF degree of freedom</th>
<th>Levene’s test for quality of variance</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experimental group</td>
<td>Equal variances</td>
<td>0.85</td>
<td>0.899</td>
<td>142</td>
<td>1.056</td>
<td>1.042</td>
</tr>
<tr>
<td></td>
<td>Equal variances assumed</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.309</td>
</tr>
<tr>
<td>2</td>
<td>Control group</td>
<td>Equal variances</td>
<td>0.85</td>
<td>0.722</td>
<td>95.46</td>
<td>1.183</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the Table 6 and 7, we can ascertain the significant association among the employees L and D and EOE pres cores. Calculated p-value here above is 0.018 which is less than the table value p>0.05. Hence we accept the Alternate Hypothesis H₁ and conclude and ascertain the significance of L and D pre score with that of overall EOE pre scores. This interpretation indicates firmly that L and D with its pre score measure by the above hypothesis testing is a prominent factor which will contribute to the post EOE Training. Hence, for the post EOE training and measurement now this variable L and D qualifies for comparison and further treatment to the respondents during the EOE training.