Training and Development as an Investment on Human Capital

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The shift towards an information based economy has elevated the importance of human capital in recent years. An increasing number of corporations now perceive that their financial success and even survival is tied more and more closely to the human capital of their workers. Paradoxically, despite growing acknowledgement of its importance, corporate investment in human capital such as basic skills, quality training, or funding continuing education is rarely measured and little is known about the value produced by such investment. Investment in human capital is widely viewed as the expenditure on education, health, training, career related knowledge and skills which improve the productive capacity of the person, increases his adaptability to the changing requirements of the economy, improves the quality of human being and increase the future monetary income potential of a person, organisation and nation at large, of these education and training has received most of the attention. However, the constantly changing business environment requires organisations to strive for superior competitive advantages through training and development programmes which incorporate skills and knowledge of creativity and innovativeness which are essentially important for their long term sustainability. Undoubtedly, human resource inputs play a significant role in enhancing organization's competitiveness.

OBJECTIVE

The aim of this study is to examine and provide non-technical assessment of knowledge on the role of training and development as investment on human capital and how this can be translated into the organisational development. The specific objectives are:

1   to analyze the impact of training and development programmes on individual and organisational performance, profitability and long term competitiveness;

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2 to probe into the reasons for incurring expenditure on training and development programmes; and

3. to study the practices followed by the organisations to train their employees.

METHODOLOGY

The present study is both qualitative and quantitative in nature. It is an attempt to identify whether training and development programmes are contributing in results as to prove that expenditure of training is an investment on human capital which will yield rich dividends in the long run through gathering and interpreting responses from 297 respondents among 5 service organisations in Karnataka (Table 1). Data were obtained through personal interview and mailing the structured questionnaire, from the most senior human resource practitioner / HR manager of the respondent organisations. Simple descriptive statistics such as mean, standard deviation and correlation were calculated by using Statistical Package for Social Science (SPSS) for analysis and interpretation of data.

DISCUSSION

This section mainly focuses on the key facilitators and inhibitors of 'transfer of learning' based on the responses collected from 267 respondents (managers and non-managers) in Karnataka. In addition to the individual characteristics of the respondents, it is also gathered and presented the views and perceptions of the trainees who attended the training programme in the recent past, such as nomination criteria, type of training programme (in-company or sponsored), main theme of the training, timing of the training evaluation, extent of training programme meeting the expectations of the trainees, feedback of the training experience, extent of transfer of learning in relation to different training themes, and extent of improvement across different dimensions of the competency after the training.

Table -1

Service Category of the Respondent Organisations

Sl. No.	Service Category	Number	Percentage
1.	Banking and Finance	76	25
2.	Hospitals/Healthcare	76	25
3.	Hotels/Hospitality	62	21
4.	Insurance	52	18
5.	Transport	31	11
	Total	**297**	**100**

Source: Primary Data

As far as the service category of the respondent units was concerned, 76 percent represented both banking and finance, and hospitals. 62 percent respondent units belong to hotels/hospitality and 52 percent belong to insurance. A small proportion of the sample units belong to transport (31%).

Nominating Criteria

The major criteria used by the organisation for nominating the employees for in-house or external training programme as perceived and reported by the respondents were: individual training needs (33%), performance and merit of the employee (24.2%), own initiative of the employee concerned (18.9%), and seniority (14.1%) – in that order. A very negligible proportion of around 5 per cent indicated the criterion of 'easy sparing of the employee' for nominating him/her for the training programme (Table 2).

Type of Training Programme

Out of 267 respondents who participated in one of the training and development programmes in the recent past, as many as 79.5 per cent were nominated for the 'in-company' programmes and the remaining 20.5 per cent were sponsored for external T&D programmes conducted by outside agencies (Table 3).

Table - 2
Nomination for the training programme

Sl. No	Criteria	Number	Percentage (N= 297)
1	Seniority	42	14.1
2	Performance and merit	72	24.2
3	Own initiative	56	18.9
4	Easy sparing of you	14	4.7
5	Own training needs	98	33.0
6	Other	32	10.8

Note: (1)Total percentage will not add up to 100 due to multiple responses.
(2) Multiple response rate (MRR) = 1.06
Source: Primary data.

Table - 3
Type of training programme attended recently

Sl. No	Training programme type	Number	Percentage
1	In-company	236	79.5
2	External	61	20.5
		297	**100.0**

Source: Primary data.

Training Theme

The major themes of the T&D programmes included: management development programmes (MDPs), technical training, interpersonal skills, health and safety, team building, IT training, induction programme, and sales and marketing - in that order (Table 4).

Nature and Extent of Transfer of Learning

As far as the nature and extent of 'transfer of learning from the place of training to the workplace' was concerned, 63 per cent could do it only to 'some extent' (mean = 4.1, SD = 0.77 in a Likert's 5-point scale: not at all =1; very little extent =2; a little extent =3; to some extent =4; to great extent = 5) (Table 5.19). Surprisingly, greater than one-half of the respondents were not able to perceive and report on their ability to apply some of the areas in which they received training in the recent past [Table 5.20 (a)]. However, the analysis of variance [Table 5.20(c)] between and within the training themes clearly indicated that the perceived *applicability* of competencies (knowledge, skills, attitudes, values, and habits) acquired in the training and development programmes significantly varied across the themes (F = 31.65, p <0.001).

Table - 4
Main theme of training programme attended

Sl. No	Training programme theme	Number	Percentage(N = 297)
1	IT training	40	13.5
2	Other technical training	65	21.9
3	Management development programme	100	33.7
4	Health & Safety	58	19.5
5	Interpersonal skills	59	19.9
6	Induction	30	10.1
7	Sales & Marketing	4	1.3
8	Team building	56	18.9
9	Other	36	12.1

Notes: (1) Total percentage will not add up to 100 due to multiple responses.
(2) Multiple response rate (MRR) = 1.51
Source: Primary data.

Table - 5
Application of learning to the job from training

Sl. No.	Extent	Number	Percentage
1	Not at all	7	2.4
2	Very little extent	4	1.3
3	A little extent	22	7.4
4	To some extent	187	63.0
5	To great extent	77	25.9
		297	**100.0**

Note: Mean = 4.1, SD = .77   Source: Primary data.

Table - 5 (a)
Training theme and perceived transfer of learning

Training theme	Tendency of transfer				Total
	Don't know	Always	Sometimes	Never	
IT training	169(56.9)	17 (5.7)	57 (19.2)	54(18.2)	297(100.0)
Other technical training	154(51.9)	14 (4.7)	72 (24.2)	57(19.2)	297(100.0)
Management development programme	115(38.7)	19 (6.4)	78 (26.3)	85(28.6)	297(100.0)
Health and safety	144(48.5)	16 (5.4)	54 (18.2)	83(27.9)	297(100.0)
Interpersonal skills	137(46.1)	11 (3.7)	67 (22.6)	82(27.6)	297(100.0)
Induction	183(61.6)	20 (6.7)	63 (21.2)	31(10.4)	297(100.0)
Sales and marketing	181(60.9)	38 (12.8)	50 (16.8)	28(9.4)	297(100.0)
Team building	152(51.2)	15 (5.1)	66 (22.2)	64(21.5)	297(100.0)
Other	277(93.3)	3 (1.0)	1 (0.3)	16(5.4)	297(100.0)

Notes: (1) X^2 = 310.78, p = 0.000, HS
             (2) Figures in parentheses indicate percentages to the respective total.   Source: Primary data.

Table - 5 (b)
Training theme and perceived transfer of learning: Standard error of the difference between means
(N = 297)

Training theme	Mean(N=297)	SD	S. Error	Minimum	Maximum
IT training	.9865	1.22191	.07090	.00	3.00
Other technical training	1.1077	1.23375	.07159	.00	3.00
Management development programme	1.4478	1.26470	.07339	.00	3.00
Health and safety	1.2559	1.31333	.07621	.00	3.00
Interpersonal skills	1.3165	1.30261	.07558	.00	3.00
Induction	.8047	1.10079	.06387	.00	3.00
Sales and marketing	.7475	1.04633	.06071	.00	3.00
Team building	1.1414	1.25749	.07297	.00	3.00
Other	.1785	.69151	.04013	.00	3.00
Total	.9985	1.22658	.02372	.00	3.00

Notes: (1) ANOVA F =31.650, p= 0.000 HS,   (2) Figures in parentheses indicate percentages to the respective total.
Source: Primary data.

Table - 5 (c)

Training theme and perceived transfer of learning: Analysing variance (ANOVA)

	Sum of squares	df	Mean square	F	Sig.
Between groups	348.917	8	43.615	31.650	.000
Within groups	3671.077	2664	1.378		
Total	4019.994	2672			

The graph depicting the relationship between the theme of the T&D programme and the mean values of perceived transfer of learning reveals that IT training, other technical training, management development programmes (MDPs), health and safety, interpersonal skills, and team building enabled **better** transfer of learning from the place of training to the workplace than 'induction' and 'sales and marketing' training programmes did (Figure 5.1).

Figure – 5.1: Theme of the training and perceived transfer of training

Theme of the training programme
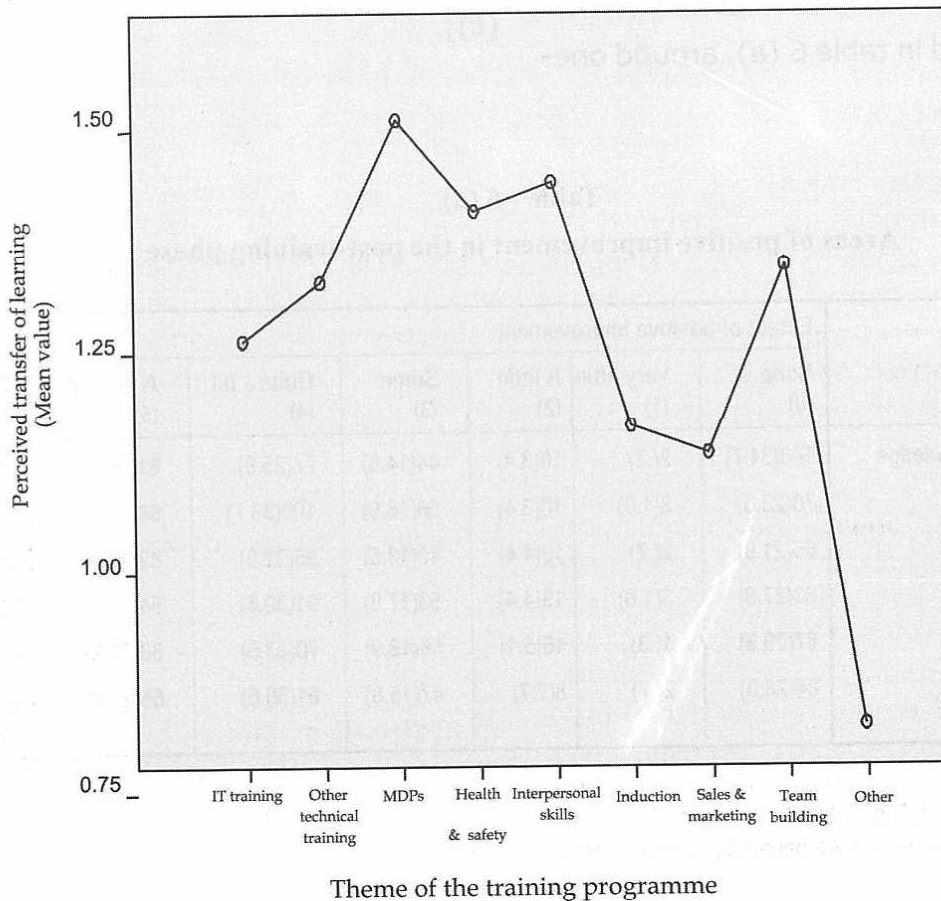
Competency Improvement in the Post-training Phase

The researcher also made an attempt to ascertain any perceived improvement in the competency of the trainees concerned after successfully attending the T&D programme. The major dimensions of 'trainee competency' considered for this analysis were: domain-specific knowledge, general knowledge, work-related skills, attitudinal change, values, and work-related habits. The degree of perceived improvement was measured and assessed across six possible levels: none, very little, a little, some, quite a bit, and a great deal.

As indicated in table 6 (a), around one-third of the respondents did not report any positive improvement in all the aforementioned dimensions of competency after attending their respective T&D programme. However, 13.5 per cent to 19 per cent of the respondents reported 'some' positive improvement across all the dimensions of competency (mean values ranging from 2.58 to 3.16; SD ranging from 1.82 to 2.03) [Table 6 (b)]. It is also crystal clear that perceived positive improvement of 'trainee competency' significantly varied within and between competency dimensions as revealed by analysis of variance ($F = 3.159$, $p<0.01$) [Table 6 (c)].

Table - 6 (a)

Areas of positive improvement in the post-training phase

Area	Extent of positive improvement						
	None (0)	Very little (1)	A little (2)	Some (3)	Quite a bit (4)	A great deal (5)	Total
Domain-specific knowledge	103(34.7)	2(.7)	10(3.4)	44(14.8)	77(25.9)	61(20.5)	297(100.0)
General knowledge	70(23.6)	3(1.0)	10(3.4)	56(18.9)	100(33.7)	58(19.5)	297(100.0)
Work-related skill	65(21.9)	2(.7)	13(4.4)	40(13.5)	95(32.0)	82(27.6)	297(100.0)
Attitudinal change	83(27.9)	3(1.0)	13(4.4)	53(17.8)	91(30.6)	54(18.2)	297(100.0)
Values	87(29.3)	1(.3)	15(5.1)	56(18.9)	70(23.6)	68(22.9)	297(100.0)
Work-related habits	84(28.3)	2(.7)	8(2.7)	47(15.8)	91(30.6)	65(21.9)	297(100.0)

Notes: (1) $X^2 = 34.727$, p = 0.093, NS
(2) Figures in parentheses indicate percentages to the respective total.
Source: Primary data.

Table - 6 (b)

Areas of positive improvement in the post-training phase: Standard error of the difference between means (N = 297)

Area	Positive improvement				
	Mean (N=297)	SD	S. Error	Minimum	Maximum
Domain-specific knowledge	2.582	2.025	.117524	.000	5.000
General knowledge	2.966	1.822	.105779	.000	5.000
Work-related skill	3.158	1.857	.107797	.000	5.000
Attitudinal change	2.767	1.895	.109960	.000	5.000
Values	2.757	1.950	.113201	.000	5.000
Work-related habits	2.855	1.942	.112709	.000	5.000
Total	2.847	1.922	.045546	.000	5.000

Notes: (1) ANOVA F = 3.159, p = 0.008 HS (2) Figures in parentheses indicate percentages to the respective total.

Source: Primary data.

Table - 6 (c)

Areas of positive improvement in the post-training phase: Analysis of variance (ANOVA)

Positive improvement	Sum of squares	df	Mean square	F	Sig.
Between groups	58.043	5	11.609	3.159	.008
Within groups	6525.744	1776	3.674		
Total	6583.787	1781			

Furthermore, the standard error of the difference between means (Table 7) highlighted statistically significant perceived positive improvement in respect of only 'work-related skills' as a result of attending T&D programme (Mean difference = -0.576, standard error = 0.157, p<0.01). The other competency dimensions revealing some positive improvement after the T&D programme were general knowledge and work-related habits. Unfortunately, the respondents could not perceive substantial improvement in their attitudinal change (mindsets), values and domain-specific knowledge as a result of undergoing T&D experience (Figure 7.1).

Table - 7
Perceived improvement in competency dimensions after receiving training in different themes: Bonferroni Test (N = 297)

Areas(I)	Areas (J)	Mean Difference (I-J)	Std. Error	P	
Domain specific knowledge	General knowledge Work related skills Attitudinal change Values Work related habits	-.383838	.157301	.222	NS
		-.575757	.157301	.004	**HS**
		-.185185	.157301	1.000	NS
		-.175084	.157301	1.000	NS
		-.272727	.157301	1.000	NS
General knowledge	Work related skills Attitudinal change Values Work related habits	-.191919	.157301	1.000	NS
		.198653	.157301	1.000	NS
		.208754	.157301	1.000	NS
		.111111	.157301	1.000	NS
Work related skill	Attitudinal change Values Work related habits	.390572	.157301	.197	NS
		.400673	.157301	.164	NS
		.303030	.157301	.813	NS
Attitudinal change	Values Work related habits	.010101	.157301	1.000	NS
		-.087542	.157301	1.000	NS
Values	Work related habits	-.097643	.157301	1.000	NS

Note: NS= not significant;   HS= highly significant.   Source: Primary data.

Figure – 7.1: Perceived improvement in different dimensions of competency after undergoing training in various themes
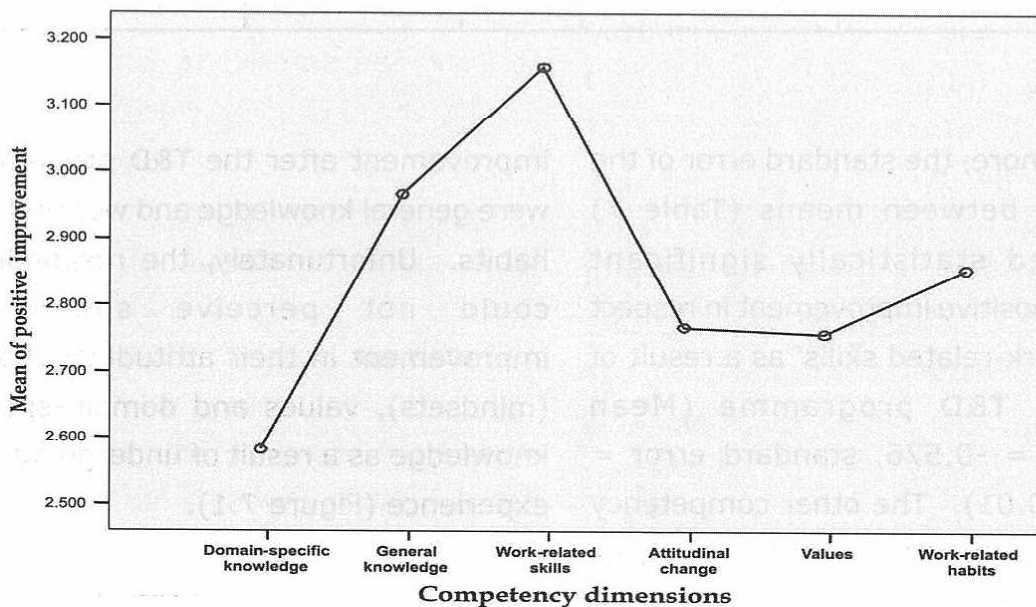
Impact of T&D Programmes on Organisational Outcomes

It is quite heartening to note that just over 42 per cent of the respondents believed that T&D programmes had a positive impact on employee productivity and a little over 67 per cent held onto the opinion that T&D programmes resulted in improved performance of the employees and the organisation. It is also salutary to note that 23 per cent to 24 per cent had faith in the capacity of these T&D programmes in reducing the cost of operations on the one hand and minimising work stress on the other. However, only a little over 10 per cent opined that T&D initiatives would reduce employee grievances (Table 8).

As a measure of satisfaction, most of the respondents strongly believed that their participation in T&D programmes and the consequent learning could match (if not exceed) the expectations of immediate superiors (mean = 3.78, SD = 1.02 in a Likert's 5-point response scale format: very little=1; a little =2; some = 3; quite a bit = 4; a great deal=5) (Table 9).

Table - 8
Perceived impact of T&D programmes on organisational outcomes

Sl. No	Organisational outcomes	Number	Percentage(N = 297)
1	Improved productivity	125	42.1
2	Improved performance	200	67.3
3	Reduced cost	70	23.6
4	Reduced work stress	67	22.6
5	Reduced grievances	31	10.4
6	Other	4	1.3

Note: (1) Total percentage will not add up to 100 due to multiple responses. (2) Multiple response rate (MRR) = 1.7

Source: Primary data.

Table - 9
Extent of fulfilling the expectations of the immediate superior

Sl. No	Extent	Number	Percentage
1	Very little	15	5.1
2	A little	12	4.0
3	Some	66	22.2
4	Quite a bit	134	45.1
5	A great deal	70	23.6
		297	**100.0**

Note: Mean = 3.78, SD =1.02   Source: Primary data.

Furthermore, by and large, the respondents rated the overall experience of the T&D programmes attended by them in the recent past and assigned a mean value of 7.05 (SD = 1.69) in a scale ranging from 1 to 10 (Table 10). Finally, most of them (91.5%) were also inclined to recommend similar T&D programmes that they attended in the recent past to their colleagues (Table 11). This is clearly indicative of their positive experience of the T&D programmes and a confirmed belief that such programmes would do a great job in enhancing the level of individual, team and organisational learning and effectiveness.

Table - 10
Overall rating for the training programme

Rating (1-10)	Number	Percentage
1	5	1.7
3	2	.7
4	20	6.7
5	20	6.7
6	18	6.1
7	132	44.4
8	55	18.5
9	20	6.7
10	25	8.4
Total	**297**	**100.0**

Note: Mean = 7.05, SD =1.69   Source: Primary data.

Table - 11
Tendency to recommend the training programme to their colleagues

Sl. No	Tendency	Number	Percentage
1	Never	25	8.4
2	Sometimes	99	33.3
3	Always	173	58.2
	Total	**297**	**100.0**

Note: Mean = 2.5, SD = .65   Source: Primary data.

FINDINGS

- The major facilitating factors responsible for transfer of learning from the place of training to the workplace were: 'sufficient resources', 'supervisory support', and 'support for creativity'.
- As far as the nature and extent of 'transfer of learning from the place of training to the workplace' was concerned, 63 per cent could do it only to 'some extent' (mean= 4.1, SD= 0.77).
- Relationship between the theme of T&D programme and the mean values of perceived transfer of learning reveals that IT training, other technical training, management development programmes (MDPs), health and safety, interpersonal skills, and team building enabled **better** transfer of learning from the place of training to the workplace than 'induction' and 'sales and marketing' programmes did.

- Around one-third of the respondents did not report any positive improvement in all the competency dimensions (*i.e.,* specific knowledge, general knowledge, work-related skills, attitudinal change, values, and work-related habits) after attending their respective T& D programmes.

- Evaluation of training and development programmes must be *simple and eonomical,* without complex formulae, lengthy equations, or complicated methodologies. Some models are simple, but many attempts at developing a comprehensive process are in conflict with this requirement. To obtain statistical perfection and precise values, some models have become overly complex and difficult to understand and use. Consequently, they have not been adopted by practitioners.

- The assumptions, methodology, and techniques must be *credible*. Logical, methodical steps are needed to earn the respect of practitioners, senior managers, and researchers. A practical approach to evaluation with a user-friendly model is required so that it may be adapted and implemented by practitioners without advanced degrees in research methods, evaluation, or statistics.

CONCLUSION

It is widely acknowledged that if T&D should become an investment in human capital which pays rich dividends in the long run, meaningful and effective transfer of learning should take place from the place of training to the workplace. In general, the likelihood of transfer occurring may depend greatly upon the post-training work environment of the trainee, especially those factors that are influenced or controlled at the organisational level. The most influential 'organisational level work environmental factors' may include organisational commitment for T&D, the match between trainee's department goals and the new learning, and a supportive and open communication climate. Furthermore, 'individual level work environmental factors' such as discussion with supervisors to use the new learning, the supervisor's involvement or familiarisation with the training, and receiving positive feedback from the supervisor appear to influence transfer of learning more than others. It is also interesting to note that some of the factors might *negatively* influence trainee's transfer of learning to their jobs such as the lack of a mentor or role model receiving negative feedback from the supervisor, lack of appropriate work flow pace, lack of tools/equipment or materials, negative feedback from co-workers, and lack of opportunity to use new learning.

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