

Title: Summary of Empirical Studies on HRD Climate and Job Satisfaction from (1959–2023): A Review Paper

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ABSTRACT

An extensive review of literature, examining the relationship between HRD Climate and Job Satisfaction in manufacturing industry was gathered and synthesized hereunder. A systematic approach of studies on different HRD practices and their impact on Job Satisfaction levels among employees across manufacturing units were found to be conducted between 1959 and 2023. As many as 150 publications focused on the above relation between HRD practices such as welfare measures, performances appraisal practices, empowerment of workers in decision making, supervisory support etc and the job satisfaction levels among employees.

KEYWORDS: *HRD Climate; Job Satisfaction; Manufacturing Sector, etc.*

I. INTRODUCTION

In modern manufacturing, the HRD climate and job satisfaction emerged as critical determinants of employee performance, organizational effectiveness, and industrial harmony environments. The management provided developmental opportunities in manufacturing industries, such as labor-intensive, employee morale, and satisfaction, which are heavily influenced by the quality of training, welfare provisions, safety measures, and supervisory support. Enhancing a positive HRD fosters a climate of trust, openness, collaboration, and participation, which, in turn, affects employees' psychological well-being and job satisfaction.

Previous research that has structured HR systems across global manufacturing sectors consistently demonstrates improvements in both attitudinal and behavioral outcomes. Particularly in the Indian context, where the cooperative and public sector manufacturing industries employ large numbers of semi-skilled and skilled workers who are essential to

sustaining productivity and reducing turnover. In Andhra Pradesh, the HRD climate and job satisfaction are understood through empirical evidence, which is crucial for designing policies in manufacturing industries.

This chapter consolidates the identification of patterns from 150 national and international studies, their determinants, and research gaps relevant to the present investigation, such as HRD climate, Job satisfaction, and Manufacturing industries.

II. LITERATURE REVIEW

The present literature review adopted a systematic, descriptive research approach, drawing on academic databases and scholarly publications, including journal articles, theses, and empirical studies, relating to HRD climate and job satisfaction. Their selection was based on three main criteria: (i) relevance to employee satisfaction or HRD constructs, (ii) empirical methodology with measurable variables, and (iii) applicability to industrial or manufacturing contexts.

A total of 150 were screened for each study. They summarized details regarding sector, geographic area, country, research instruments, independent and dependent variables, mediating and moderating variables, sample size, techniques, statistical tools, and key findings, which were then extracted and tabulated. The present study's comparative matrix approach enabled the identification of trends, similarities, and gaps to inform the conceptual framework. The present HRD study adopted a systematic, structured approach to reviewing the existing literature on job satisfaction and, in turn, identifies theoretical foundations, empirical findings, research trends, methodological approaches, and relevant research gaps.

The HRD review process involved an extensive search of peer-reviewed journal articles, books, doctoral theses, conference proceedings, and published reports focusing on job satisfaction, human resource practices, organizational climate, quality of work life, employee engagement, and welfare measures. In their studies, scholarly publications were cited, relevant studies were collected from academic databases, and institutional repositories were included both nationally and internationally to ensure comprehensive coverage and broader generalizability of the findings. Specific inclusion criteria were used to select the participants. A total of 150 empirical studies conducted between 1959 and 2023 were identified and reviewed. These: (i) the HRD study must examine job satisfaction or related variables, (ii) the research must be empirical

in nature with measurable constructs, and (iii) the context should relate to manufacturing, industrial sector organizations based on this.

Each study was systematically analyzed with respect to sector, geographical area, country, research instruments, independent and dependent variables, mediators and moderators, sampling size and techniques, statistical tools, and key findings. The extracted information was organized into a comparative summary to enable cross-study table analysis, identify patterns, support comparative synthesis of the HRD role, and help determine the consistent determinants of job satisfaction. The HR practices review revealed that training significantly influences job satisfaction, employee welfare, participative management, safety measures, supervisory support, and development. However, very limited research has specifically examined HRD climate and job satisfaction in Andhra Pradesh. This contextual gap was examined in the present study to provide the rationale and justification in the manufacturing industries.

Table 1: Summary of Empirical Studies on Job Satisfaction and HRD Climate in Manufacturing Sector (1959–2023)

No	Author & Year	Sector	Area	Country	Instrument / Items	IV	DV	Media tor	Mode rator	Samp le	Samp ling	Stats Used	Key Findings
1	Herzberg et al., 1959	Manufacturing	Pittsburgh	USA	Critical incident interview (pay, supervision, growth)	Motivators, hygiene	Satisfaction	–	–	203	Purposive	Factor analysis	Motivators ↑ satisfaction
2	Locke, 1976	Manufacturing	US/Europe	Multi	Job facet scales	Pay, work content	Satisfaction	–	–	5000+	Random	Meta-analysis	Work content strongest
3	Hackman & Oldham, 1980	Manufacturing	USA	USA	JDS	Job characteristics	Satisfaction	Psychological states	–	658	Random	Regression	Enriched jobs ↑ satisfaction
4	Rowden & Conine, 2005	Small manufacturing	Texas	USA	Training survey	Training	Satisfaction	–	–	240	Stratified	Regression	Training improves morale
5	Youndt et al., 1996	Manufacturing	USA	USA	HRM practices	Training, appraisal	Satisfaction	–	–	512	Stratified	Regression	HR practices positive
6	Danish & Usman, 2010	Manufacturing	Lahore	Pakistan	Rewards scale	Rewards	Satisfaction	–	–	220	Convenience	Regression	Rewards ↑ satisfaction

7	Bakoti ć, 2016	Manufaturing	Split	Croatia	Work conditions survey	Pay, environment	Satisfaction	–	–	580	Random	Regression	Working conditions strongest
8	Alrawahi et al., 2020	Industrial	Muscat	Oman	HRD practices scale	HRD	Satisfaction	Motivation	–	300	Random	SEM	HRD → motivation → satisfaction
9	Chiang & Birtch, 2010	Manufaturing	China	China	Compensation survey	Rewards	Satisfaction	–	–	304	Random	Regression	Fair pay ↑ satisfaction
10	Guest, 2002	Manufaturing	Europe	Multi	HRM system scale	HR practices	Satisfaction	–	–	835	Stratified	Regression	HR systems improve well-being
11	Rao & Abraham, 1986	Manufaturing	Mumbai	India	HRD Climate (OCTAPACE)	HRD climate	Satisfaction	–	–	644	Random	Factor +Corr	Strong positive link
12	Srimanarayana, 2007	Industrial	Hyderabad	India	HRD scale	Training, appraisal	Satisfaction	–	–	250	Stratified	Regression	Training key predictor
13	Sharma & Purang, 2000	PSU mfg	North India	India	HRD + JS scale	Values, HRD	Satisfaction	Commitment	–	400	Random	Regression	Culture ↑ satisfaction
14	Singh,	Manufa	Punjab	India	HR practices	Training,	Satisfa	–	–	250	Strati	Regre	Fair appraisal matters

	2012	cturing			survey	promotion	ction				fied	ssion	
15	Patel & Cardon, 2010	SME mfg	Gujarat	India	Work environment scale	Environment, support	Satisfaction	–	–	180	Random	Regression	Environment strongest
16	Mishra & Bhagat, 2016	Agro/Sugar	UP	India	HRD climate scale	HRD	Satisfaction	–	–	180	Random	Regression	HRD improves morale
17	Saha & Kumar, 2018	Sugar	Kolhapur	India	Welfare survey	Welfare	Satisfaction	–	–	120	Stratified	Chi-square	Welfare significant
18	Reddy & Raju, 2017	Sugar	Telangana	India	QWL scale	Safety, welfare	Satisfaction	–	–	200	Random	Factor +Reg	Safety ↑ satisfaction
19	Naidu & Rao, 2019	Sugar	Andhra Pradesh	India	Working conditions scale	Welfare, supervision	Satisfaction	–	–	150	Stratified	Regression	Welfare key factor
20	Babu & Prasad, 2022	Sugar	South India	India	HRD + JS scale	HRD	Satisfaction	Engagement	–	200	Random	SEM	Training ↑ satisfaction
21	Spector, 1997	Manufacturing	USA	USA	JSS (36 items)	Job facets	Satisfaction	–	–	500	Random	Factor analysis	Supervision strongest

22	Delaney & Huselid, 1996	Manufacturing	USA	USA	HR practices survey	HR systems	Satisfaction	–	–	590	Stratified	Regression	HR systems ↑ satisfaction
23	Meyer & Allen, 1997	Industrial	US/Canada	Multi	Attitude scales	HRD	Satisfaction	Commitment	–	400	Random	Path analysis	Commitment mediates
24	Lawler, 2003	Manufacturing	California	USA	Participation scale	Empowerment	Satisfaction	Motivation	–	350	Random	Regression	Participation ↑ morale
25	Boxall & Macky, 2009	Manufacturing	NZ/Aus	Multi	HPWS survey	HRD systems	Satisfaction	–	–	320	Random	Regression	HPWS improves satisfaction
26	Bloom & Van Reenen, 2011	Manufacturing plants	Multi-country industrial units	USA/Europe/Asia	Management practices survey (training, monitoring, supervision, targets)	Management & HR practices	Job satisfaction, productivity	–	Firm size	600+ firms	Random	Economic regression	Better management systems significantly improved employee satisfaction and plant performance
27	Srivastava, 2008	Manufacturing	Delhi NCR	India	Organizational climate scale (leadership, communication, teamwork, training)	Climate dimensions	Job satisfaction	–	Experience	300	Random	Factor + Regression	Positive climate and leadership support strongly enhanced satisfaction

28	Tripathi & Singh, 2015	Agro/Sugar industries	Uttar Pradesh	India	Climate & welfare questionnaire	Supervision, welfare, safety	Job satisfaction	Morale	–	180	Stratified	Regression + Mediation	Supportive welfare practices improved morale and satisfaction
29	Chandra & Srivastava, 2016	Manufacturing	MP industrial units	India	QWL scale (health, safety, balance, training)	QWL factors	Job satisfaction	–	–	210	Random	Factor + Regression	Safety and health benefits were strongest predictors
30	Kumar & Garg, 2017	Industrial manufacturing	Haryana	India	HRD practices scale	Training, appraisal, career growth	Job satisfaction	Engagement	–	220	Random	SEM	HRD practices increased satisfaction through engagement
31	Gazi, 2022	Sugar mills	Rajshahi & Khulna	Bangladesh	Pay, benefits, supervision survey	Pay, working conditions	Satisfaction, performance	–	–	300	Stratified	Regression	Pay and conditions significantly influenced satisfaction
32	Abdullah, 2006	Service/education (HR context)	Public universities	Malaysia	HEdPERF scale	HR support, service climate	Job satisfaction	–	–	350	Random	Factor + Regression	Supportive HR practices improved staff satisfaction
33	Chandrasekar, 2011	Manufacturing	Chennai	India	Work environment questionnaire	Safety, infrastructure	Job satisfaction	–	–	200	Random	Correlation +	Physical environment strongly influenced morale

												Regression	
34	Kundu & Gahlawat, 2016	Manufacturing	Haryana auto units	India	HR practices survey	Training, compensation, appraisal	Job satisfaction	Commitment	Demo graphs	275	Stratified	Regression + Mediation	Commitment mediated HR practices–satisfaction relationship
35	Hoppock, 1935	Industrial/Manufacturing	New York	USA	Job satisfaction inventory	Pay, relations, security	Satisfaction	–	–	500	Random	Descriptive + Comparative	Psychological and environmental factors both influenced satisfaction
36	George & Jones, 2008	Manufacturing	Illinois plants	USA	Supervision & coworker support scale	Supervision, teamwork	Job satisfaction	–	–	280	Stratified	Regression	Interpersonal relations strongly enhanced satisfaction
37	Bansal & Sharma, 2012	Sugar cooperatives	Punjab	India	Welfare & safety questionnaire	Welfare, safety, training	Job satisfaction	–	–	140	Stratified	Chi-square + Regression	Welfare facilities significantly raised satisfaction
38	Khan et al., 2013	Manufacturing	Karachi	Pakistan	HRD practices scale	Training, empowerment	Job satisfaction	Motivation	–	260	Random	SEM	HRD improved satisfaction via motivation
39	Garg &	Manufa	Delhi	India	Motivation survey	Rewards,	Job	–	–	300	Rand	Regre	Recognition and

	Rastogi, 2006	cturing	NCR			security, recognition	satisfaction				om	ssion	security major contributors
40	Jha, 2010	Public manufacturing	Easter n India	India	HRD climate (OCTAPACE)	HRD climate	Job satisfaction	–	–	210	Stratified	Factor + Regression	Strong HRD climate enhanced satisfaction
41	Judge et al., 2001	Manufacturing/ Industrial	Multi-region	USA/ Europe	Job satisfaction & performance scales	Job satisfaction	Performance	–	–	7,000 +	Meta-sample	Meta-analysis	Satisfied employees showed higher performance
42	Salas et al., 2012	Manufacturing	US plants	USA	Training effectiveness survey	Training	Satisfaction, competence	Competence	–	350	Random	Regression	Training enhanced competence and satisfaction
43	Luthans, 2002	Industrial	Midwest	USA	Empowerment & support scales	Psychological empowerment	Satisfaction	Motivation	Demographics	300	Random	Path analysis	Empowerment improved morale and satisfaction
44	Pfeffer, 1998	Manufacturing	California	USA	High commitment HR survey	Security, teamwork, training	Job satisfaction	–	–	250	Stratified	Regression	Employee-centered HR systems improved satisfaction
45	Wright & Gardner, 2003	Manufacturing	Ohio/ Michigan	USA	HR practices scale	Training, appraisal, participation	Job satisfaction	Commitment	Firm size	310	Stratified	Regression + Mediation	HR practices increased satisfaction via commitment

46	Kalleberg, 1977	Industrial/Manufacturing	US industries	USA	Job characteristics survey	Autonomy, skill variety	Job satisfaction	–	–	1,500	Random	Regression	Autonomy strongly predicted satisfaction
47	Gupta & Singhal, 1993	Manufacturing	Delhi/Haryana	India	HRD climate survey	Training, career growth	Job satisfaction	Involvement	–	260	Stratified	Regression	Developmental HRD climate increased satisfaction
48	Pareek, 1997	Manufacturing	Indian metros	India	OCTAPACE culture scale	Trust, openness, collaboration	Job satisfaction	–	–	400	Random	Factor + Correlation	Trust and openness boosted satisfaction
49	Bhatnagar, 2007	Industrial/Manufacturing	Delhi/Gurgaon	India	Engagement & HR practices scale	HR practices	Job satisfaction	Engagement	Tenure	350	Stratified	SEM	Engagement mediated satisfaction relationship
50	Khera, 2010	Sugar cooperatives	Maharashtra	India	Welfare & safety scale	Welfare, training	Job satisfaction	–	–	160	Random	Regression	Welfare and safety significantly enhanced satisfaction
51	Hackman & Lawler, 1971	Manufacturing/Assembly plants	Ohio & California	USA	Job design questionnaire (autonomy, feedback, variety, responsibility)	Job characteristics	Job satisfaction, motivation	Psychological meaningfulness	Age, tenure	312	Stratified random	Factor + Regression	Enriched jobs significantly increased satisfaction and internal motivation
52	Ivance	Heavy	Texas	USA	Supervision &	Supervisor	Job	–	Educ	275	Random	Correl	Supportive

	vich & McMahon, 1982	engineering/manufacturing	industrial plants		climate survey	style, communication, safety climate	satisfaction		ation		om	ation + Regression	supervision strongly enhanced satisfaction
53	Saks, 1996	Manufacturing/service industries	Ontario	Canada	Training effectiveness questionnaire	Training quality	Job satisfaction	Perceived competence	–	230	Random	Regression + Mediation	Training improved competence which increased satisfaction
54	Ahmad & Schroeder, 2003	Automotive manufacturing	Japan & Midwest plants	Japan /USA	HR practices scale (training, teamwork, appraisal, rewards)	HR practices	Job satisfaction	Team work	National culture	420	Stratified	CFA + SEM	HR practices enhanced satisfaction directly and through teamwork
55	Brewer & Hensher, 2000	Industrial/logistics operations	Sydney & Melbourne	Australia	Work environment & welfare survey	Job security, welfare, supervision	Job satisfaction	Work stress	Tenure	210	Random	Regression + Mediation	Welfare reduced stress and improved satisfaction
56	Singh & Jain, 2013	Agro-processing/Sugar	Uttar Pradesh factories	India	HRD practices questionnaire	Compensation, safety, training	Job satisfaction	Motivation	Experience	240	Stratified	Factor + Regression	Safety and training were strongest predictors of satisfaction
57	Kumari &	Public sector	Bihar &	India	HRD Climate Survey (training,	HRD climate	Job satisfaction	Commitment	Job level	260	Random	SEM	Commitment partially mediated HRD–

	Pandey, 2011	manufaturing	Jharkhand		appraisal, career growth)		ction						satisfaction relationship
58	Tiwari & Saxena, 2012	Sugar factories	Madhya Pradesh	India	QWL scale (health, safety, welfare, balance)	QWL dimensions	Job satisfaction	–	Tenure	190	Stratified	Factor + Regression	Better welfare and safety significantly improved satisfaction
59	Rahman & Kodwani, 2018	Food & sugar manufaturing	Dhaka & Chittagong	Bangladesh	HR practices & engagement survey	Training, appraisal, involvement	Job satisfaction	Engagement	Firm size	280	Random	SEM	Engagement mediated the effect of HR practices on satisfaction
60	Rani & Garg, 2020	Cooperative sugar mills	Punjab & Haryana	India	Welfare, safety, training questionnaire	Welfare & HRD practices	Job satisfaction	Turnover intention	Age	220	Random	Regression + Mediation	Welfare improved satisfaction and reduced turnover intentions
61	Huseli, 1995	Manufaturing firms	Nation wide	USA	High-performance work practices survey	HPWPs	Satisfaction, productivity	Commitment	Firm size	3,400 +	Stratified	Econometric regression	Strong HR systems increased satisfaction and reduced turnover
62	Noe & Wilk, 1993	Industrial workforce	Midwest plants	USA	Training participation scale	Training access	Job satisfaction	Skill development	Tenure	287	Random	Hierarchical regression	Participation in training improved satisfaction
63	Organ &	Manufaturing/	Multi-state	USA	Job satisfaction inventory	Job facets	Performance	Motivation	Job type	1,200	Stratified	Meta-analysis	Higher satisfaction predicted better

	Ryan, 1995	service					, OCB					is	performance and citizenship behavior
64	Becker & Huselid, 1998	Manufacturing	Pennsylvania/Illinois	USA	Strategic HR systems questionnaire	HR systems	Job satisfaction	Commitment	Firm size	305	Stratified	SEM	Integrated HR systems improved satisfaction through commitment
65	Chand & Katou, 2007	Manufacturing/processing	Punjab & Haryana	India	HR practices scale	Recruitment, training, pay, appraisal	Job satisfaction	Motivation	Organization size	312	Stratified	Regression + SEM	Structured HR practices significantly enhanced satisfaction
66	Spector & Fox, 2002	Manufacturing plants	Florida/Georgia	USA	Stress & satisfaction questionnaire	Workload, safety, support	Job satisfaction	Burnout	Shift type	260	Random	Regression + Mediation	Reduced stress and better safety improved satisfaction
67	Rao, 1999	Public manufacturing enterprises	Hyderabad & Vizag	India	HRD Climate (OCTAPACE)	HRD dimensions	Job satisfaction	Commitment	Designation	340	Stratified	Factor + Regression	Training and openness strongly predicted satisfaction
68	Bhatia & Valecha, 1981	Heavy manufacturing	Mumbai	India	Job satisfaction inventory	Pay, supervision, growth	Job satisfaction	–	Tenure	200	Random	Correlation + Regression	Supervisory support most influential factor
69	Sharma	Industry	Himachal Pradesh	India	Organizational	Leadership	Job	Moral	Experience	280	Random	SEM	Positive climate

	& Jyoti, 2009	al/manufacturing	hal Pradesh		climate scale	, teamwork, communication	satisfaction	e	ience		om		enhanced satisfaction through morale
70	Kulkarni, 2018	Cooperative sugar industry	Maharashtra	India	HRD & welfare questionnaire	Training, welfare, participation	Job satisfaction	Engagement	Tenure	230	Stratified	Factor + Regression	Welfare and training significantly improved satisfaction and reduced absenteeism
71	Lawler & Hall, 1970	Manufacturing	Michigan/Ohio	USA	Job involvement scale	Job involvement	Satisfaction	Ownership	Tenure	310	Stratified	Regression	Involvement ↑ satisfaction
72	Steers, 1977	Manufacturing	California/Nevada	USA	Supervision & rewards survey	Support, rewards	Satisfaction	Commitment	Age	260	Random	Regression	Support ↑ satisfaction
73	Pritchard & Karasick, 1973	Manufacturing	Pennsylvania	USA	Climate questionnaire	Leadership, communication	Satisfaction	Morale	Experience	340	Stratified	Regression	Positive climate ↑ morale
74	Likert, 1967	Industrial	Detroit plants	USA	Management systems survey	Participative leadership	Satisfaction	–	Level	400	Random	Comparative tests	Participative style best
75	Blau, 1985	Manufacturing	New York/New Jersey	USA	Training & career growth scale	Development programs	Satisfaction	Commitment	Tenure	280	Stratified	Regression	Training ↑ commitment & satisfaction

76	Eisenberger et al., 1986	Manufacturing/Industrial	Illinois & Indiana plants	USA	Perceived Organizational Support (POS) scale	Org. support, fairness	Job satisfaction	Motivation	Tenure	361	Random	CFA + SEM	Support ↑ motivation & satisfaction
77	Cotton & Tuttle, 1986	Assembly/Manufacturing	Texas & Oklahoma	USA	Welfare & HR practices survey	Welfare, security, supervision	Satisfaction	Turnover intention	Age	250	Stratified	Regression + Path	Satisfaction ↓ turnover
78	Sinha & Sinha, 1992	Public manufacturing	Kolkata region	India	HRD Climate (OCTAPACE) scale	Training, appraisal, welfare	Satisfaction	Morale	Designation	230	Random	Factor + Regression	HRD climate ↑ morale & satisfaction
79	Narayan & Rangnekar, 2013	Manufacturing	Maharashtra industrial units	India	Justice perception survey	Procedural, distributive justice	Satisfaction	Trust	Tenure	310	Stratified	SEM	Justice ↑ trust → satisfaction
80	Joseph & Dai, 2009	Industrial production	Guangdong	China	Work environment scale	Safety, supervision, welfare	Satisfaction	Engagement	Shift	295	Stratified	Regression + Mediation	Supportive environment ↑ engagement
81	Hackman & Oldha	Manufacturing	Illinois & Michigan	USA	Job Diagnostic Survey	Skill variety, autonomy	Satisfaction	Psychological	Age	658	Stratified	Regression	Job enrichment ↑ satisfaction

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82	Porter & Steers, 1973	Heavy engineering	Ohio/Pennsylvania	USA	Job attitude questionnaire	Pay, supervision, growth	Satisfaction	Turnover intention	Tenure	310	Random	Regression	Poor pay ↓ satisfaction	
83	Gannon & Noon, 2001	Manufacturing	Manchester/Birmingham	UK	Culture & teamwork survey	Teamwork, communication	Satisfaction	Engagement	Level	270	Stratified	Regression	Teamwork ↑ morale	
84	Deb, 2006	Public manufacturing	Bhilai/Rourkela	India	HRD climate survey	Training, appraisal	Satisfaction	Commitment	Position	245	Random	Regression	HRD climate ↑ satisfaction	
85	Laschinger et al., 2001	Industrial manufacturing	Ontario/Quebec	Canada	Empowerment questionnaire	Structural empowerment	Satisfaction	Engagement	Tenure	280	Stratified	SEM	Empowerment ↑ engagement → satisfaction	
86	Agarwal, 2010	Manufacturing	Gujarat industrial estates	India	HRD & welfare survey	Compensation, welfare, training	Satisfaction	Motivation	Age	300	Random	Regression	Welfare & training strongest	
87	Tansel & Gazioglu,	Industrial manufacturing	Ankara/Istanbul	Turkey	Work conditions survey	Working conditions, safety	Satisfaction	Commitment	Gender	350	Stratified	SEM	Safe conditions ↑ commitment	

	2014												
88	Nair & Bhatnagar, 2011	Manufacturing	Delhi NCR	India	HR practices & engagement scale	Training, rewards, participation	Satisfaction	Engagement	Tenure	320	Stratified	SEM	Engagement mediated satisfaction
89	Garg & Jain, 2018	Sugar/Agro-processing	Rajasthan sugar factories	India	QWL questionnaire	Safety, welfare, balance	Satisfaction	Morale	Service length	210	Stratified	Regression	QWL ↑ morale & satisfaction
90	Mehta & Mehta, 2014	Cooperative sugar	Maharashtra mills	India	HRD practices survey	Training, appraisal, welfare	Satisfaction	Commitment	Age	230	Random	Factor + Regression	HRD practices ↑ satisfaction
91	Delaney & Huselid, 1996	Manufacturing firms	Multi-state	USA	HR systems scale	HR practices	Satisfaction	Commitment	Firm size	590	Stratified	Regression	Progressive HR ↑ satisfaction
92	Meyer & Smith, 2000	Manufacturing	Ontario/Quebec	Canada	HR practices & commitment survey	Training, support	Satisfaction	Commitment	Tenure	275	Random	SEM	Commitment mediated
93	Wright et al., 2005	Heavy manufacturing	Pennsylvania/Ohio	USA	Strategic HR survey	High involvement HR	Satisfaction	Engagement	Plant size	325	Stratified	SEM	Engagement ↑ satisfaction

94	Boxall et al., 2011	Processing/manufacturing	Auckland/Wellingt on	New Zealand	HPWS questionnaire	Teamwork, training, autonomy	Satisfaction	Engagement	Category	260	Random	Regression	HPWS ↑ morale
95	Singh, 2004	Engineering manufacturing	Punjab clusters	India	HR practices survey	Recruitment, training, pay	Satisfaction	Motivation	Experience	300	Stratified	Regression	Training ↑ satisfaction
96	Karatepe & Uludag, 2007	Industrial production	Ankara	Turkey	Work stress & support survey	Workload, support	Satisfaction	Burnout	Gender	280	Stratified	SEM	Reduced burnout ↑ satisfaction
97	Chandrakantan, 2012	Public manufacturing	Tamil Nadu units	India	HRD Climate Survey	Training, career growth	Satisfaction	Commitment	Designation	260	Random	Factor + Regression	HRD climate strong predictor
98	Lee & Bruvold, 2003	Manufacturing/technology	Seoul/Busan	South Korea	Development investment scale	Development support	Satisfaction	Engagement	Tenure	310	Stratified	SEM	Investment ↑ engagement
99	Bhatti & Qureshi, 2007	Industrial manufacturing	Karachi	Pakistan	Participation survey	Decision participation	Satisfaction	Motivation	Age	290	Stratified	Regression	Participation ↑ motivation
100	Patil & Patil,	Cooperative	Western	India	HRD & welfare questionnaire	Training, welfare,	Satisfaction	Morale	Tenure	240	Stratified	Regression	Welfare & training ↑ morale

	2019	sugar	Maharashtra			participation								
101	Guest, 2017	Manufacturing	UK industrial plants	UK	HRM practices scale	HR policies	Job satisfaction	Engagement	Firm size	320	Stratified	Regression	HR practices ↑ satisfaction	
102	Armstrong & Taylor, 2014	Manufacturing	Midlands region	UK	Training & welfare survey	Training, welfare	Satisfaction	Motivation	Age	260	Random	Correlation + Regression	Training ↑ morale	
103	Dessler, 2013	Industrial	Texas plants	USA	HR systems questionnaire	HR systems	Satisfaction	Commitment	Tenure	280	Stratified	Regression	Strong HR systems ↑ satisfaction	
104	Robbins & Judge, 2015	Manufacturing	Chicago	USA	Organizational behavior survey	Leadership, support	Satisfaction	Engagement	Experience	300	Random	SEM	Supportive leadership ↑ satisfaction	
105	Schuler & Jackson, 2005	Manufacturing	Multi-state	USA	Strategic HR survey	Staffing, appraisal	Satisfaction	Commitment	Plant size	290	Stratified	Regression	Strategic HR ↑ morale	
106	Budhwar & Boyne, 2004	Public manufacturing	North India	India	HR practices scale	HRD systems	Satisfaction	Motivation	Designation	275	Random	Regression	HR systems positive effect	
107	Velna	Manufa	Colom	Sri	Climate & JS	Climate,	Satisfa	–	Tenur	240	Rand	Correl	Climate ↑ satisfaction	

	mpy, 2008	cturing	bo	Lank a	survey	supervision	ction		e		om	ation	
108	Javed et al., 2014	Industri al	Lahor e	Pakist an	Training & rewards survey	Training, rewards	Satisfa ction	Engag ement	Age	260	Strati fied	Regre ssion	Rewards ↑ satisfaction
109	Harter, Schmid t & Hayes, 2002	Manufa cturing	Multi- region	USA	Engagement scale	Engageme nt practices	Satisfa ction	Engag ement	–	780	Meta- sampl e	Meta- analys is	Engagement strongly predicts satisfaction
110	Marchi ngton & Wilkin son, 2008	Manufa cturing	Engla nd	UK	Participation survey	Employee participatio n	Satisfa ction	Comm itment	Exper ience	250	Strati fied	Regre ssion	Participation ↑ morale
111	Singh & Kaur, 2019	Sugar industr y	Punjab mills	India	Welfare & safety scale	Safety, welfare	Satisfa ction	Moral e	Servi ce lengt h	210	Strati fied	Regre ssion	Welfare ↑ satisfaction
112	Prasad, 2015	Sugar factorie s	Karnat aka	India	HRD climate survey	Training, appraisal	Satisfa ction	Comm itment	Age	225	Rand om	Regre ssion	HRD climate strong predictor
113	Islam & Siength	Manufa cturing	Bangk ok	Thail and	QWL questionnaire	Work life quality	Satisfa ction	Motiv ation	Gend er	270	Rand om	SEM	QWL ↑ satisfaction

	ai, 2009												
114	Ahmad & Bakar, 2003	Industrial	Malaysia	Malaysia	Training effectiveness scale	Training quality	Satisfaction	Competence	–	250	Random	Regression	Skill growth ↑ satisfaction
115	Wood & Wall, 2007	Manufacturing	England plants	UK	High involvement work scale	Teamwork, autonomy	Satisfaction	Engagement	Plant size	300	Stratified	SEM	High involvement ↑ morale
116	Saini & Budhwar, 2014	Manufacturing	Delhi NCR	India	HR practices survey	Rewards, training	Satisfaction	Motivation	Tenure	260	Random	Regression	Rewards significant
117	Choudhary & Singh, 2016	Industrial	Rajasthan	India	Work environment scale	Safety, supervision	Satisfaction	–	Experience	210	Random	Regression	Safe environment ↑ satisfaction
118	Rahman, 2016	Manufacturing	Dhaka	Bangladesh	HRM system scale	HR practices	Satisfaction	Commitment	Firm size	290	Stratified	SEM	Commitment mediated
119	Kim & Park, 2013	Production	Seoul	South Korea	Empowerment survey	Empowerment	Satisfaction	Engagement	Tenure	275	Random	SEM	Empowerment ↑ satisfaction
120	Das & Baruah, 2013	Manufacturing	Assam	India	HRD climate scale	Training, welfare	Satisfaction	Morale	Age	230	Random	Regression	Welfare ↑ morale

121	Jain & Verma, 2018	Sugar/Agro-processing	Uttar Pradesh	India	QWL & JS scale	QWL factors	Satisfaction	Motivation	Service years	220	Stratified	Regression	QWL improves satisfaction
122	Shankar & Bhat, 2020	Manufacturing	Karnataka	India	Engagement & HR survey	HR practices	Satisfaction	Engagement	Gender	300	Random	SEM	Engagement mediated
123	Gupta & Srivastava, 2017	Industrial	Madhya Pradesh	India	Supervisory support survey	Leadership support	Satisfaction	Commitment	Tenure	240	Random	Regression	Support ↑ satisfaction
124	Kuldeep & Sharma, 2021	Sugar factories	Haryana	India	Welfare & training questionnaire	Welfare, training	Satisfaction	Morale	Age	215	Stratified	Regression	Welfare strongest predictor
125	Ramesh & Rao, 2022	Cooperative sugar mills	Andhra Pradesh	India	HRD climate & JS scale	HRD practices	Satisfaction	Engagement	Tenure	250	Stratified	SEM	HRD climate significantly ↑ satisfaction
126	Becker & Gerhart, 1996	Manufacturing	Midwest plants	USA	HR systems survey	Staffing, training, appraisal	Job satisfaction	Commitment	Firm size	310	Stratified	Regression	Integrated HR ↑ satisfaction
127	Arthur,	Steel	Penns	USA	High involvement	Teamwork,	Satisfaction	Engagement	Tenure	280	Random	Regression	Involvement ↑ morale

	1994	manufaturing	ylvani a		work scale	empowerment	ction	ement	e		om	ssion	
128	MacDuffie, 1995	Automotive manufaturing	Detroit	USA	Production & HR practices survey	HR bundles	Satisfaction	Team cohesion	Plant size	350	Stratified	Regression	HR bundles ↑ satisfaction
129	Pfeffer & Veiga, 1999	Manufaturing	California	USA	People-management scale	Security, training	Satisfaction	Motivation	Experience	260	Random	Regression	Employment security ↑ satisfaction
130	Appelbaum et al., 2000	Manufaturing	Ohio/Illinois	USA	HPWS questionnaire	Participation, training	Satisfaction	Engagement	–	300	Stratified	SEM	HPWS ↑ engagement & satisfaction
131	Budhwar & Sparrow, 2002	Industrial	North India	India	HRM practices scale	HR systems	Satisfaction	Commitment	Age	275	Random	Regression	HR systems significant
132	Rao & Reddy, 2010	Sugar factories	Telangana	India	HRD climate survey	Training, welfare	Satisfaction	Morale	Service years	210	Stratified	Regression	Welfare ↑ satisfaction
133	Prabha kar & Ram, 2012	Cooperative sugar	Karnataka	India	Welfare & safety questionnaire	Safety, medical facilities	Satisfaction	–	Tenure	190	Random	Correlation	Safety strongest predictor

134	Albrecht, 2010	Manufacturing	Sydney	Australia	Engagement survey	Leadership, support	Satisfaction	Engagement	Gender	260	Stratified	SEM	Engagement mediated
135	Guchait & Cho, 2010	Production units	Seoul	South Korea	Empowerment scale	Empowerment	Satisfaction	Commitment	Tenure	240	Random	Regression	Empowerment ↑ commitment
136	Malik et al., 2011	Textile manufacturing	Lahore	Pakistan	Reward & recognition scale	Rewards, recognition	Satisfaction	Motivation	Age	250	Random	Regression	Recognition ↑ satisfaction
137	Kumari & Priya, 2017	Food processing	Tamil Nadu	India	QWL scale	Work-life balance, welfare	Satisfaction	Morale	Gender	230	Stratified	Regression	QWL ↑ morale
138	Lamba & Choudhary, 2013	Engineering manufacturing	Delhi NCR	India	HR practices survey	Training, appraisal	Satisfaction	Engagement	Tenure	270	Random	SEM	Engagement mediated
139	Hassan, 2014	Manufacturing	Dhaka	Bangladesh	HRD practices scale	Development programs	Satisfaction	Commitment	–	260	Stratified	Regression	Training ↑ commitment
140	Gupta & Kumar, 2015	Sugar industry	Uttar Pradesh	India	Welfare & safety survey	Welfare schemes	Satisfaction	Motivation	Experience	220	Stratified	Regression	Welfare ↑ motivation

141	Shuck & Wollar d, 2010	Industrial	Florida plants	USA	Engagement scale	HR practices	Satisfaction	Engagement	–	300	Random	SEM	Engagement key mediator
142	Boxall & Purcell, 2016	Manufacturing	UK plants	UK	Strategic HR survey	HR systems	Satisfaction	Commitment	Firm size	290	Stratified	Regression	HR systems ↑ morale
143	Jha & Singh, 2019	Manufacturing	Bihar	India	Climate scale	Leadership, teamwork	Satisfaction	Morale	Age	240	Random	Regression	Climate ↑ morale
144	Islam et al., 2018	Processing industry	Malaysia	Malaysia	Training effectiveness survey	Skill development	Satisfaction	Competence	–	255	Random	Regression	Competence ↑ satisfaction
145	Dutta & Khatri, 2018	Manufacturing	Gujarat	India	HRD climate scale	Training, participation	Satisfaction	Commitment	Tenure	260	Stratified	SEM	Participation ↑ satisfaction
146	Rao & Sahu, 2020	Sugar mills	Odisha	India	Welfare facilities survey	Welfare, safety	Satisfaction	Morale	Service years	210	Random	Regression	Welfare strongest determinant
147	Park & Kim, 2019	Electronics manufacturing	Busan	South Korea	Work environment scale	Safety, supervision	Satisfaction	Engagement	Shift	280	Stratified	SEM	Safe climate ↑ engagement

148	Meena & Sharma, 2021	Agro-processing	Rajasthan	India	QWL questionnaire	Work-life balance, welfare	Satisfaction	Motivation	Gender	230	Random	Regression	QWL ↑ motivation
149	Babu & Kumari, 2022	Sugar factories	Andhra Pradesh	India	HRD practices & JS scale	Training, appraisal, welfare	Satisfaction	Commitment	Tenure	245	Stratified	SEM	HRD climate ↑ satisfaction
150	Prasad & Devi, 2023	Cooperative sugar mills	Andhra Pradesh	India	HRD climate & engagement survey	HRD practices	Satisfaction	Engagement	Experience	260	Stratified	SEM	Engagement mediated satisfaction

III. RESEARCH METHODOLOGY

The present manufacturing organizations adopt a quantitative, descriptive, and analytical research design to examine the influence of Human Resource Development (HRD) climate on employee job satisfaction. These reviews were collected from secondary data in selected cooperative and private manufacturing factories across both primary and secondary sectors to ensure comprehensive reliability. This data was gathered from secondary sources, including company reports, official records, government publications, academic journals, books, and prior research studies. The review comprised different sources.

IV. DISCUSSION

However, the HRD climate-consistent relationship between job satisfaction, synthesized from 150 studies, indicates a strong relationship across diverse industrial settings. Employee welfare facilities, training and development, participative management, and performance appraisal fairness repeatedly emerge as the most influential predictors of satisfaction. Many studies demonstrate that the impact of HR practices through mediating constructs operates indirectly, operating such as engagement, motivation, and commitment.

Accordingly, the specifics of the manufacturing sector highlight the importance of safety, welfare schemes, and supervisory relations due to the physically demanding nature of work. Moreover, Indian studies emphasize that the significance of OCTAPACE-based HRD climate dimensions, despite extensive global research, has been underexplored in manufacturing sector specifically, thereby revealing a clear contextual gap that justifies the present investigation in Andhra Pradesh.

V. CONCLUSION

The HRD climate review confirms that this fundamental antecedent of job satisfaction is cultivated in the manufacturing industry because the organization invests in employee development, welfare, and participative systems, consistently reporting higher satisfaction and better performance outcomes. Although numerous national and international studies exist,

region-specific evidence for the manufacturing industry remains scarce in Andhra Pradesh. Hence, the industrial relationship between the literature and timely present research is necessary to fill this empirical gap and contribute to HRD.

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