# Probing Micro-Organizational Behaviour to Enhance Employee Engagement and Boost Business Performance: A Goal Programming Approach

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# Abstract

**Purpose-** Every individual has different types of characteristics and personalities, and various factors affect their behaviour. The model embodying micro-organizational behaviour analyzes and determines the most critical factors that affect individual action within an organization based on different goal priorities and moves onto optimize employee productivity better for leveraging the organizational performance.

**Design/Methodology/Approach-** LINGO and optimization modelling software for solving non-linear, linear and integral programming problems are used in the paper. The methodology used for this study is the goal programming method. The goal programming model simultaneously takes up many objectives, and it seeks to cater to the best solution amongst the set of feasible solutions. Researchers use an efficient analytical framework to furnish optimal solutions for a given set of different and conflicting goals encapsulating the problem. The various selection criteria used in this study are worker's happiness, Cooperation, job security and employee productivity. The underlying sub-criteria like Turnover Rate, Absenteeism Rate, Retention Rate, Productivity Rate, Length of Service and Job Satisfaction Rate are the basis of the formulation of goal priorities.

**Findings-** In this work, if Goal Priority-1 (Minimizing Turnover Rate) is taken up as the objective, then Criteria-2 (Cooperation) and Criteria-4 (Job Satisfaction) are the optimal selections that exhibit efficacious goal-seek behaviour. When Goal Priority-2 (Minimizing Absenteeism Rate) is singled out or when Goal Priority-3 (Maximizing Retention Rate) is chosen as the objective, subsequently, the Criteria- 1 (Worker's Happiness) and Criteria-4 (Job Satisfaction) are optimal choices. Finally, when Goal Priority-4 (Maximizing Productivity Rate) is taken-up, Criteria-1 (Worker's Happiness) is an optimal preference that best optimizes the micro organizational behaviour model developed for the study.

**Research Limitations-**The requirements presented in this work are limited compared to real-life individual behaviour that is very complex and differentiated from one another. Future researches can thus explore more, identify and examine the interactions of factors like culture and influential capacity in different regions, cultural responses and patterns that influence the employees and their effects and impact on the development and amelioration of microorganizational practice.

**Practical Implications-**The study has tried to reinforce the micro organizational behaviour theory by developing a different perspective, simulating a model with the help of the Goal Programming approach to analyze the typical employee behaviour in the work environment. From the G.P. model developed and studied in this work, the management practitioners can decide the real goal priorities and alternative plans so that appropriate measures for organizational effectiveness can be taken quickly.

**Originality/Value-** In a first, this study utilizes the goal programming (G.P.) method to analyze the micro-organizational behaviour concerning business performance and employee engagement.

# Introduction

The concept of Micro-organization behaviour, commonly known as individual behaviour, centres mainly on individuals working in an organization. It is of prime importance in forming the groups, as they possess different characteristics that differentiate them. This level of organizational behaviour focuses mainly on the nature and practices adopted by additional employees while performing their work in the organization. Micro organizational behaviour studies employees' personality types to determine whether or not they are a good fit for the organization. Critical research and conclusions were segregated during the review process from the available literature sources and discussed below.

The businesses of today are operated in an erratic and turbulent climate. Now and then, organizations are bound to make perpetual shifts and contingent alterations to adapt to the ever-dynamic backdrop. The exceedingly crucial goal for any organization would be to ride out and with stand such kind of turbulent environment. Keeping this in focus, many research enthusiasts in organizational science have improved organizations' effectiveness to the core. Each step adopted by the organizations aims to ameliorate efficiency (Kataria et al., 2013). A firm can attain long-term effectiveness only through a consistent and amenable workforce committed to its organizational objectives. Al-Sada et al. (2017) have asserted that business obligations are fundamental. It significantly impacts the critical prospects of organizational behaviour (Yiing and Ahmad, 2009). Organizational Commitment thus talks about the employees' faith in corporate objectives and employees' constantly earning to become devoted associates of an organization (Shoaib et al., 2013).

Moreover, Shoaib et al. (2013) have also propounded that the contemporary corporate scenario is dramatically changing, so managers must have adequate plans and procedures to upgrade employee loyalty and organizational commitment. These practices create a competitive advantage and improve the comprehensive effectiveness of anorganization. It also generates a sense of contentment among employees on the absenting motive or concerns about their earning (Shoaib et al., 2013; Yiing and Ahmad, 2009). Hadian (2017) undertakes that workers with organizational commitment will dedicate their strength, thinking, time, energy and attention to the job assigned to bring about optimal gains for the company.

For sustaining its venture and values over time, an organization must realize that the essence of the workforce is rapidly transforming, and that is the main keynote of this paper. In this competitive and dynamic environment, harnessing and engaging human resources is necessary to escalate its input towards improving the qualitative advantage of the organization(Chakraborty and Biswas, 2019). Thus, this paper finds its strength and motivation from the fundamental and indispensable employee parameters related to an organization: worker's happiness, Cooperation, productivity, and job satisfaction. As indicated in Figure 1, the first three parameters possess an interconnection with each other. The kind of interaction and consequent exchanges among them defines the fourth parameter of job satisfaction. According to Kalleberg

(1977), Work Satisfaction or Employee Satisfaction is an activity that encompasses a specific range of pride that the workers experience for different prospects concerning their job.Al-Sadaet al. (2017) advocate regarding work contentment which represents a salubrious psychological condition arising out of the assessment of the work episodes. Specifically, soaring job contentment levels among employees contribute to the victory of an organization, while low job contentment levels may disrupt the organizational processes (Al-Sadaet al., 2017). Job Contentment also plays a crucial part in augmenting the productivity and effectiveness of an organization too (Kalleberg, 1977). From the micro organizational behaviour point of view, this input is very much intrinsic for an organization to frame its HRD policies and business strategies to ensure optimum utilization of the available human capital for seeking the organizational goals. The paper has thus tried its level best to bridge this gap with the help of a goal programming approach to analyze better the challenges associated with the micro organization behaviour.

This paper inquires into the micro-organization behavioural study with a firm grasp of decision-making techniques and a sophisticated computer simulation model to analyze the better instances of employee engagement, contributing to organizational effectiveness and leveraging the business performance. An outline intention of the paper is well reflected in Figure 1.

**Figure 1 :** Proposed causal relationships between Micro Organization Behaviour and other parameters



Truss et al.(2013) have addressed the emerging concerns and questions raised by intellectuals from various domains like critical management studies, industrial relations, HRM and work sociology regarding the position of the engagement constructs and their significance in the background of employment relationships. The authors have gleaned and utilized several articles that advance the academic study connecting HRM and employee engagement. Future studies enriching our knowledge regarding psychological processes backing involvement is a prerequisite. These explorations will help get a piece of better learning and hold on to the thrived experiences of accomplishing the engagement and being committed. And, it also includes the matters relating to power and engagement, the exact status and definition of engagement construct and lastly, the macro and micro level engagement performance processes within an organizational setting.

Worker's engagement represents the expanse to which there exists a feeling of commitment and a passion in the employee while fulfilling the works allocated and putting discretionary efforts into the action assigned (Wu and Wu, 2019). An engaged employee looks at the whole of the company and tries to understand where and how to fit in to contribute to the organization's best interests, resulting in better decision-making. Business ventures are characterized by higher profits, reduced operating costs, and increased customer satisfaction with a more significant number of engaged employees. A substantial monetary advantage can be gained quickly by businesses investing time and available resources in encouraging higher engagement within their employees through socially responsible H.R. practices.

Kundu and Gahlawat (2015) have indicated that employee engagement is closely linked to plenty of desirable outcomes, like job contentment and performance and the intention to stay back. Employees are those proponents who speak highly of an organization even when they are away from the work setting. Losing track of time while performing the job is a clear indicator of engagement as such employees get entirely engrossed in the task at hand. Engaged employees are predisposed to cover an extra mile in search of business excellence. A much-explored domain in the literature of organizational science is the effectiveness of an organization. Organizational Effectiveness (O.E.) is a multi-paradigm approach that a single scale or basis can never fathom. Numerous studies have been carried out to explain organizational efficiency and identify the hardcore traits necessary for an active organization.

The effectiveness of an organization connotes the amount to which an organization realizes its set objectives. An organization can be assumed to be effective only when its policies, structural setting, human resources and methods are so oriented that it can predict the accomplishment of its outcomes (Andreadis, 2009). Organizational effectiveness is the premise for workforce engagement (Katariaet al., 2013). Involvement is recognized as the behaviour of a working individual which favours the meting out of the organizational agendas (Bakker and Schaufeli (2008);Jeung (2011)).

Simulation acts as an enabler in studying the challenges that are not quickly addressed or maybe assumed to be unthinkable to solve even with relevant scientific approaches. Because organizations are complex systems, many of their vital traits and behaviours are often inaccessible to researchers. Over time, simulation can prove itself to be a specific and beneficial research instrument for management theorists. Recent researches in this regard have been discussed below.

Majid, Siebers and Aickelin (2011) have discussed the two different individual behaviours in service systems: reactive and proactive, best described by using the simulation approach. Their investigations focused on resolving the two-pronged query- whether modelling dynamic human behaviour in the service industry is beneficial and identifying the simulation methods best suited for modelling such behaviour.

The role of simulation has often been undervalued and not much recognized by many management research communities despite its increasing relevance and the method's promise in front of the research fraternity. Simulation is a legitimate yet powerful and disciplined method to scientific investigation, potentially contributing to management theory in general. Singh, Duggirala and Balaraman, (2016) described a model that subsumes human behaviour into simulated agents working in an organization. This approach initiates with a simple model and goes on integrating itself. The complexity of behaviour keeps on increasing until realistic behaviour emerges. The researchers have demonstrated a possible way of modelling individual behaviour into programmed agents. As only bivariate relations are considered; therefore, the human behaviour model studied is limited compared to real-world human behaviour.

Chutivongse and Gerdsri (2019) have argued on organization development and the challenges management faces while planning for an innovative organization by road mapping and maturity model. The research adopts an analytical process to develop a strategic roadmap that guides the business venture to transform into an innovative organization.

Barnabè and Davidsen (2019) argue on the decision making and behaviour analysis by using a System Dynamics model. The researchers have contributed to the debate on Behavioural Operational Research, an emerging stream through this work. They have provided accurate insights and ample evidence for the still-expanding domain of Behavioural System Dynamics, favouring further exploration in this sector at the same time. The research unveiled that behavioural aspects might play a crucial part in affecting human decision-making in the backdrop of simulation.

Raza and Faisal (2018) have described a decision support system model for the joint profit maximization and the organization's environment conservation goals by price and greening effort.

Rehman, CAO and WeiMing, (2017) describe a model that provides real-time tracking of trust levels and repercussions of Trust Building Measures. It helps to forecast future trust levels, making it an indispensable part of decision-making. This paragon can be easily implemented in any circumstances or environment, predominantly to gauge the ongoing status of institutional trust in a trading business that may help make better decisions.

Kumar, Shukla and Sharma, (2019)have provided an

amalgamation of a theoretical structure and pragmatic execution by using Interpretive Structural Modelling study to derive linkages and identify impediments altering the path to attain retirement planning goals. This work is a preliminary effort to identify barriers in retirement planning implementation and rank them according to their importance.

Several pieces of literature, as discussed above, have portrayed the application of mathematical modelling and simulation-based practices in solving human resource implementation as well as organizational problems and also in studying the complex social behaviour in the work environment.

Still, there is a shortage of studies involving simulation approach and multi-criteria methods of decision making in micro-organizational behaviour practice. The Goal Programming approach and its applicability in organizational development and engaging talented human capital can prove to be of profound importance for all the organizations in every corner of the world.

Also, simulation analyzes can offer a bouquet of advantages to management practitioners. It can play a significant role in theoretical development and even in managing practical research efforts by providing insights into the functioning of complex systems. It can comfortably investigate their behaviours too. The simulation approach can also examine the repercussions of theoretical assumptions and arguments, generate alternative explanations and hypotheses, and test their validity.

By depending upon formal modelling, simulation imposes academic rigour and also advocates scientific progress. The authors have attempted to serve better in fulfilling this gap in the literature too.

# **Research Objectives**

- To develop a micro-organizational behaviour model using the Goal Programming method and analyze employee attitude and workplace behaviour to optimize employee productivity and leverage business performance.
- To study the model and suggest the best measures for augmenting employee engagement and attaining organizational effectiveness.

# **Research Methodology**

In the simulation approach adopted here, a virtual situation is imitated like a real-life problem, which is then clubbed with innovation and different possible cases that might be useful to solve the problem. Computer simulation is used to model real-life situation problems on programming, and this model is then decrypted by choosing the appropriate technique, which then validates the model. Simulation is a less time-consuming and less costly method because it performs experimentation and is also very helpful for exploring different possibilities.

This approach can be helpful for future circumstances and models constructed in an artificial environment with the available data and information. According to Cetinkaya, Verbraeck and Seck (2010), the models developed in an artificial environment get more prominent and complicated day after day. So, the fundamental procedure for establishing the simulation model is processing aparticular framework that includes different stages and the related data and information.

**Figure 2** :Flowchart representing the processes in the GP model development



As shown in Figure 2, while developing the G.P. model, the first level is the 'Problem Definition' where owners having problems will define their purpose of the study and their requirements. The second level is 'Conceptual Modelling', during which the modeller will develop a theoretical model that reflects the real-life problem considering the whole world or the outer environment. The third level is 'Specification', which provides a platform for the simulation specialist, and it also offers a specification to each independent model. The fourth level is 'Implementation', whereby computer scientists develop an executable platform for the model. It is then followed by the fifth level, the terminal point called 'Experimentation', where model implementation efforts are put-in by the modeller. The modeller runs the model by assigning a particular situation, and the results obtained by testing are finally analyzed. In this research, LINGO, and optimization modelling software for solving integral, non-linear, linear programming problems (LPP)analyze microorganizational behaviour using the Goal Programming (G.P.) method. The Goal Programming method, a continuation of an LPP, is one of the optimization tools of decision making, which applies to solve multi-criteria rather than the single criterion problem. Over the last fifty years, the G.P.approach has been impressively refined, leading the G.P. method to be one of the choicest instruments for handling multi-criteria decision analysis. Its expanse in terms of implementation is vast and includes domains like engineering, management and social sciences.

GhasemyYaghin et al. (2013) have tendered a Fuzzy G.P. (FGP) construct to simultaneously carry out price fixation, lot-sizing, and marketing decisions. Specific marketing issues have been the focus in several studies, like allotment of shelf space (Reyes and Frazier, 2007) and planning of the resource distribution (Kwak, Schniederjans and Warkentin, 1991; Brauer and Naadimuthu, 1990).

Multicriteria methods represent an entirely new tool to consolidate quality and quantity oriented processes to study and manage natural resource challenges posed and other

environmental problems. Thus, they have been utilized quite extensively in the field. Biswas and Pal (2005) have brought up an FGP construct to analyze the land utilization and planning challenges in a rural setup in a commune located in the Indian polity of West Bengal. They are more focused on the consequences of alternative cropping procedures on land-oriented and economic goals. Specific and more straightforward models focusing on a similar front include Weighted G.P. (WGP) (Limanei et al.(2014)) and LGP (Sen and Nandi (2012)) constructs. Another active domain of exploration tackles the water managementoriented objectives. Verma et al. (2010) have applied numerous G.P. techniques like weighted, lexicographic and min-max based G.P.to analyze the optimum monthly functioning in India. They highlight that although LGP constructs impose clear-cut priorities, they also effectively optimize water resource-related operations and systems.

### **Goal Programming Method**

The problem discussed here is the multi-criteria decision problem because there is not just one criterion that affects individual behaviour, but many such approaches are there. As a consequence, decision-making techniques have to be used to decide on the issues. Goal programming is advantageous over others in coping with real-life practical decision-oriented situations as it shows how a manager makes decisions. The significant advantages of Goal Programming are- Firstly, the model development and implementation are relatively simple, flexible, efficient and straightforward. Secondly, the model and its assumptions seem consistent with typical real-world problems. Thirdly, it has the capability of handling decision problems with a single goal having multiple sub-goals. The goal function concerning a G.P. model may contain non-homogenous quantities of measurement.

Figure 3 below represents the methodology and the approach used in this study in a crystal-clear manner. The first phase pertains to the problem design, consisting of five sequential steps: criteria definition, data collection, calculation of performance characteristics, goal formulation, and constraint definition.



methodology involved

In phase two, the solution phase, as per Figure 3, two of the Goal Programming methods have been utilized to wrap up the work done so far. This study has endeavoured to use goal programming to solve multiple employee selection problems. Two forms of goal programming were instrumental in solving the model formulated in this work: the sequential problem and the pre-emptive weight problem. The pre-emptive weight method assigns a weight to each goal, and an objective function minimizes the overall process. In solving the pre-emptive goal programming method, a priority sequence approach is used. This model can be appropriate for selecting employees in future while taking benefit from the previous data. It includes considerations like Cooperation, job satisfaction and workers' happiness (Kundu and Gahlawat (2015)).

# **Defining the Criteria**

The four essential criteria vital to this study are job satisfaction, worker's happiness, Cooperation and productivity.

	Criteria		Sub-Criteria
1.	Worker's Happiness	1.1	Turnover Rate (T.R.)
		1.2	Absenteeism Rate (AR)
2.	Cooperation	2.1	Retention Rate (RR)
3.	Productivity	3.1	Productivity Rate (PR)
4.	Job Satisfaction	4.1	Length of Service (LS)
		4.2	Job Satisfaction Rate
			(J.R.)

Table	1:	Selection	Criteria
Table	1.	Sciection	CITCITA

Relationship between Criteria and Sub-Criteria

In the above-stated Table 1, which contains the selection criteria, the criteria considered are job satisfaction, Cooperation, productivity, and workers happiness. The first criteria selected here is Worker Happiness; it refers to the happiness or unhappiness regarding the job. So, the two sub-criteria that are chosen here will help to check and gauge whether employees feel happy or not. The first subcriteria taken into account are the Turnover Rate. It measures the proportion of employees who turn off their job due to numerous reasons. The second sub-criteria involves Absenteeism Rate, and it refers to the pace with which employees go absent during their career. The Turnover Rate and Absenteeism Rate should be minimum for the better effectiveness of the organization. If these rates maximize, the organization will have to make additional monetary investments to recruit more employees.

The second criteria, from Table 1, is Cooperation. It is the situation in which employees forma team or group to work together to achieve the organizational goals. The subcriteria chosen here is the Retention rate. It refers to the proportion of employees who do not quit their job and remain in the organization.

The third parameter, from Table 1, is Productivity. This model refers to employee productivity, which is measured by the above-indicated sub-criteria, productivity rate. Productivity rate is the proportion of the overall production divided by the number of employees; this rate must be maximized.

The fourth paradigm, from Table 1, is Job Satisfaction. It refers to the worker's perception of the role that has been assigned and the feelings of an individual employee concerning the career expectations and growth prospects. Will an individual, feel secure or not in an organizational setting? And whether or not these behaviours will affect employees' responses and reactions. So, the suitable subcriteria for the option would be the Length of Service and Job Satisfaction Rate. Period of service or service tenure is the term of the period the worker stays in the job. The job satisfaction rate is the rate that shows how many employees feels satisfied. So, these two rates should be maximum for the better operation and effectiveness of the organization.

#### Assumptions

There is a particular assumption made while constructing the mathematical model. They are as follows:

- The planning period is assumed to be of one year.
- Average yearly productivities of the employees are supposed to be constant during the planning period.
- It is expected that early recruit employees do not affect the planned model.

#### **Performance Benchmark**

The performance is calculated from the formulae given below:

T.R. 
$$=\frac{\text{Number of employees who leave}}{\text{Counting of total employees}}$$

A.R. = Number of employees absent during the period Number of employees employed during the period

P.R. 
$$=\frac{\text{Total production}}{\text{Total input}}$$

L.S. 
$$=\frac{\text{Current date} - \text{The date on which an employee is hired}}{365}$$

$$JR = \frac{The satisfied number of people}{Counting of total employees}$$

#### **Performance Table**

These are calculated values computed using the formula.

Selected Employee (SE)	TR	AR	RR	PR	LS	JR
(3E)	0.0104	0.0000	0.0000	0.0000	0.0(50	0.7000
SEII	0.0194	0.0000	0.0280	0.0000	0.9658	0.7200
SE12	0.0164	0.0000	0.0231	0.0400	0.9771	0.7317
SE13	0.0168	0.0000	0.0232	0.0000	0.9865	0.7280
SE14	0.0077	0.0000	0.0298	0.0000	1.0000	0.7297
SE21	0.0124	0.0000	0.0459	0.0000	0.9496	0.7270
SE22	0.0095	0.0357	0.0335	0.0000	0.9286	0.6972
SE23	0.0119	0.0000	0.0190	0.0000	2.9799	07251
SE24	0.0097	0.0000	0.0208	0.0400	0.8991	0.7263
SE31	0.0150	0.0000	0.0463	0.0417	0.9739	0.7267
SE32	0.0100	0.0417	0.0382	0.0417	0.9500	0.7269
SE33	0.0317	0.0417	0.0331	0.0000	0.9605	0.7251
SE34	0.0173	0.0400	0.0192	0.0400	0.9276	0.7263
SE41	0.0126	0.0000	0.0192	0.0000	0.9504	0.7136
SE42	0.0220	0.0417	0.0461	0.0000	0.9344	0.7301
SE43	0.1531	0.0410	0.0157	0.040	0.9419	0.7155
SE44	0.0072	0.0000	0.0163	0.0417	0.9152	0.7198
Source: Author's Computation						

#### **Table 2. Performance Characteristics**

The data has been gathered through a structured interview method from concerned and responsible stakeholders of a top-rated and reputed Indian multinational I.T. company. The interview focused on gathering information like the total number of employees, the number of employees who leave or switch from the firm, and the number of employees who frequently remain absent or are regular absentees. The performance characteristics values of the selected employees (SE) in Table 2 was calculated from the list of formulas as indicated above under the heading of 'Performance Benchmark'. The calculated values of performance characteristics, as in Table 2, for the Selected Employees (SE) concerning the sub-criteria discussed above, namely, Turnover Rate (T.R.), Absenteeism Rate (A.R.), Retention Rate (R.R.), Productivity Rate (P.R.), Length of Service (L.S.) and Job Satisfaction Rate (J.R.), are then fed as input into the formulation of goals and constraints stated under the next heading.

#### Formulation of Goals

The appropriate variable description, along with the wording of the goals, is as follows:

SE=Selected employee for criteria

Xij=Binary integer variable

TR=Turnover rate for selected employees

NTR=Negative deviation of TR

PTR=Positive variation of TR

TTR=Targeted deviation of TR

AR=Absenteeism rate for selected employees

NAR=Negative variance of AR

PAR=Positive variety of AR

TAR=Targeted deviation of AR

RR=Retention rate for selected employees

NRR=Negative divergence of RR

PRR=Positive variation of RR

TRR=Targeted deviation of RR

PR=Productivity rate for selected employees

NPR=Negative variance of PR

PPR=Positive change of PR

TPR=Targeted deviation of PR

LS=Length of Service of an employee

NLS=Negative variation of LS

PLS=Positive divergence of LS

TLS=Targeted deviation of LS

JR=Absenteeism rate for selected employees

NJR=Negative departure of JR

PJR=Positive change of JR TJR=Targeted deviation of JR REit=Required number of employees AYPijt=Average yearly production Goal 1: Minimizing the Turnover Rate (T.R.)  $\sum_{i=1}^{I} TR *SE + NTR - PTR = TTR * \sum_{i=1}^{I} SE$ Goal 2: Minimizing the Absenteeism Rate (A.R.)  $\sum_{i=1}^{I} AR *SE + NAR - PAR = TAR * \sum_{i=1}^{I} SE$ Goal 3: Maximizing the Retention Rate (RR)  $\sum_{i=1}^{I} RR * S.E. + NRR - PRR = TRR * \sum_{i=1}^{I} SE$ Goal 4: Maximizing the Productivity Rate (P.R.)  $\sum_{i=1}^{I} PR *SE + NPR - PPR = TPR * \sum_{i=1}^{I} SE$ Goal 5: Maximizing the Length of Service of an employee (LS)  $\sum_{i=1}^{I} LS *SE + NLS - PLS = TLS * \sum_{i=1}^{I} SE$ Goal 6: Maximizing the Job Satisfaction rate (JR)  $\sum_{i=1}^{I} JR *SE + NJR - PJR = TJR * \sum_{i=1}^{I} SE$ **Formulation of Constraints** 

There are two types of constraints used in this study (1) Demand Constraints and (2) Capacity Constraints.

### **Demand Constraints**

The sum of the employees selected and assigned should not be less than the required number of employees in the company.

 $\sum_{i=1}^{I} SE_{ii} + S.E_{it} \ge RE_{it}$ 

#### **Capacity Constraints**

The Productivity of the selected employee should be equal to or less than its average yearly productivity.

 $SE_{ijt} \le AYP_{ijt} * X_{ij}$ 

The selected employee quantities assigned to each criterion are calculated using the goal programming method for each priority goal, as in Table 3 below.

Criteria	Selected Employee	elected Employee Goal Priority				
		1	2	3	4	
1	SE11	0	400	400	1000	
	SE12	0	1000	1000	1000	
	SE13	0	0	0	1000	
	SE14	0	0	0	1000	
2	SE21	1000	0	0	0	
	SE22	1000	0	0	0	
	SE23	1000	0	0	0	
	SE24	0	0	0	0	
3	SE31	0	0	0	0	
	SE32	0	0	0	0	
	SE33	0	0	0	0	
	SE34	0	0	0	0	
4	SE41	0	600	600	0	
	SE42	0	0	0	0	
	SE43	0	1000	1000	0	
	SE44	1000	1000	1000	0	

#### Table 3. Outcomes of Goal Programming

Source: Author's Computation

All the goals of the model developed have been solved by using LINGO optimization software. As indicated in Table 3, the value for the employee choices is obtained by performing each goal along with the constraints classified under the heading 'Formulation of Goals' discussed above.

For particular Goal Priority, in Table 3, if the Selected Employee (SE) value corresponding to Criteria is zero, it implies that the Criteria are not an optimal choice regarding that Goal Priority. And, if for a particular Goal Priority, the Selected Employee (SE) value corresponding to a Criteria is more than zero, then the Criteria associated with it, as in Table 3, would be considered an optimal choice for the concerned Goal Priority.

Therefore, from Table3, for goal priority 1, the optimal outcome criteria are 2 and 4. Similarly, for goal priority 2, the optimal outcome criteria are 1 and 4. For goal priority 3, the optimal outcome criteria are 1 and 4. If goal priority 4 is chosen, the optimal outcome criteria will be criteria 1.

As mentioned in Table 3, the outcomes show us that when the focus of management practitioners is on minimizing the turnover rate, the organization should orient its employee policies only to ensure worker's Cooperation and involvement and provide job satisfaction for better effectiveness. Similarly, suppose the focus is on minimizing the absenteeism rate. In that case, the organization must take care of the worker's happiness and mental well-being and improve job satisfaction levels. Suppose the focus of the organization is on maximizing the retention rate. In that case, the organization should focus on providing a healthier and happier workplace, which can smoothly augment the employee's length of service. A fair employee retention strategy would provide job autonomy and enthuse a sense of ownership among the employees by providing them with proper training and focusing on their career development to retain and revitalize their interests in the organization and their job. Job Satisfaction is an overlapping criterion for tackling both the absenteeism rate and the retention rate. The organization's preparedness can ensure job Satisfaction to ensure the psychological wellbeing of its employees.

The focus should also be on giving recognition to strategically relevant employees through employee programmes and policies. The changing social demands across the globe have changed the nature and structure of traditional work practices. Work is not just a necessity or survival measure but is associated with personal and professional development and family satisfaction. If the focus of the business firm is to leverage the productivity rate, then the organization's policy-makers must also draft a coherent plan of action for ensuring workers' happiness.

All these factors must be in synergy to achieve the best outcomes in the case of bothemployer and worker. It will engage people in the organization while allowing them to have a balanced life outside the workplace. Some of the world's best performing organizations understand that creating a work-life balance is crucial for excellent outcomes on the merit of business performance. Work-life balance is a strategic initiative for an engaged workforce that results in business growth.

# **Results and Discussions**

As micro organizational behaviour is the behaviour shown by the employees towards the organization and to the other employees, a model is developed using the goal programming method, which determines the best criteria for selecting the employees for an organization. The main concern is rewarding the employees in a way that works best for them and defines the personality types of individuals. Similarly, it is imperative to determine whether or not these selected employees are a good fit for given organizational environment. The criteria used to assess employee behaviour are tangible and ascertained at the modelling stage by properly formulating the developed model. This Goal Programming (G.P.) model focuses on the organizational goals because an organization has different types of objectives and priorities which it aims to accomplish.

The criteria chosen here are job satisfaction, Cooperation, productivity, and worker's happiness. Job satisfaction and worker's happiness is the feeling or perception of the employees towards their job. As mentioned in Table 3 and precisely stated beforehand, the upcoming discussions would help the readers better understand the results. If Goal Priority-1 (Minimizing Turnover Rate) is taken up as the objective, then Criteria-2 (Cooperation) and Criteria-4 (Job

Satisfaction) are the optimal selections that exhibit efficacious goal-seek behaviour. When Goal Priority-2 (Minimizing Absenteeism Rate) is singled out or when Goal Priority-3 (Maximizing Retention Rate) is chosen as the objective, subsequently, the Criteria- 1 (Worker's Happiness) and Criteria-4 (Job Satisfaction) are optimal choices. Job satisfaction necessitates clarity and openness and in the leadership behaviours of management practitioners. Primarily they should provide timely feedback to employees, be open while accommodating others' ideas, especially their subordinates, and share the requisite details while making crucial decisions (Kong et al., 2018). Finally, when Goal Priority-4 (Maximizing Productivity Rate) is taken-up, Criteria-1 (Worker's Happiness) is an optimal preference that best optimizes the model associated with the problem under study. Workers' happiness and positivity are crucial in getting the employees' promise and control and augmenting productivity standards. The enhancement in the positive mental state of workers directly influences organizational commitment (Al-Sada et al., 2017). Corporates can also organize positive cognitive shaping activities in the workplace to nurture the employee thinking with a more refreshing, positive and innovative perspective towards life and job (Wu and Wu, 2019). Besides, employees need to enable and prepare themselves with adequate learning and intellectual advice to be more effective, more productive and develop a lasting association with organizational commitment (Huynh and Hua, 2020).

To nurture a positive mentality and understanding of the workers towards the diversity policies effectuated by the organization, the employers must make significant attempts to encourage the diversity push at all the management levels. It also incorporates the upper levels of government only to ensure that workers don't interpret these initiatives only as an act of lip service. The people involved in decision making shouldn't pull all of their eggs in a single receptacle. They should invest in diversity primarily focussing on the middle level of management, by numerous diversity campaigns and programmes and appropriate strategies to upgrade business performance. Service-based organizations lead to exhibiting diverse workers at different management levels. They bestow a clear-cut roadmap to multinational organizations and manufacturing companies, which might necessitate their diversity practices to positively motivate and engage workers, ultimately enhancing their organizational accomplishments (Kundu, Mor, Kumar and Bansal, 2019).

#### **Theoretical Contribution**

This study has a multi-faceted contribution to microorganizational behaviour theory and practice. Firstly, based on the observations of Kwon et al. (2016), which describes the engagement of an able workforce as one of the biggest obstacles that the organizations are outstaring today. The present study has strived to analyze the influence of workers' happiness, Cooperation, productivity levels and job satisfaction on organizational effectiveness and employee engagement. Indications regarding the association and existing linkages among the above employee-centric factors and employee engagement were made by Kundu and Gahlawat (2015). Secondly, the findings of the study have thoroughly discussed all the interacting paradigms concerning each of the criteria related to the employee with the support of the micro organizational behaviour simulation model so developed and is an extension to the previous studies by Chatman and Flynn (2005) and Harrison, Lin, Carroll and Carley, (2007), Kundu and Gahlawat (2015), Majid, Siebers and Aickelin, (2011) and Singh, Duggirala and Balaraman, (2016). Thirdly, this research endeavour has also made relevant suggestions to augment employee engagement. The present study thus complements the existing literature from the standpoint of micro organizational behaviour and the use of modelling simulation for studying the aspects of organization behaviour (Bakker and Schaufeli (2008);Schaufeli and Bakker (2010); Barnabè and Davidsen (2019); Katariaet al. (2013); Chutivongse and Gerdsri (2019); Jeung (2011); Kwon et al. (2016)). The road to organizational effectiveness crosses its path with employee's commitment which can be ensured easily by providing greater job autonomy and control and enthusing and encouraging the ownership sentiment among the personnel.

Majid, Siebers and Aickelin (2011) have focused more on resolving the two-pronged query. Whether modelling dynamic human behaviour in the service industry is beneficial and identifying the best simulation methods suited for modelling such behaviour. The present study finds motivation from the same and has tried to take a step forward and the efforts made are in line with it. Fourthly, the authors have been attempting to revitalize the significance and application of computer simulation in resolving the micro organizational behaviour model. Singh, Duggirala and Balaraman, (2016) described a model that subsumes human behaviour into simulated agents working in an organization. This approach initiates with a simple model and then goes on adding and integrating itself. On similar lines, the authors in the present effort have endeavoured to explore and address the micro organizational behaviour problems and the underlying complexities with the help of modelling and simulation. In this way, the present effort contributes to the available research literature on worker's engagement and business performance. In a nutshell, the present study has tried to reinforce the micro organizational behaviour theory by developing a different perspective, that is, simulating a model with the help of the Goal Programming approach to analyze the typical employee behaviour in the work environment (Joolaieet al. (2016); Limaneiet al.(2014); Sen and Nandi (2012)).

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