

Efficacy of Search & Recruitment Behavior of firms

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The literature on firm search and recruitment has spanned over six decades. Although studies have been conducted on understanding the search behavior of job seekers, there is a dearth of literature corresponding to recruitment behavior firms. This paper attempts to unravel the search behavior of Indian firms. Our analysis is based on 101 firms that had most recently hired employees. In Akerlof's work the study began with the basic statement of the lemon problem and proceeded to investigate indexes of firm search behavior. This paper contributes to the understanding of inclusive picture of ways in which Indian firms search for job seekers and the kind of job seekers they look for.

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Introduction

There has been a growing number of theoretical and quantitative experiments on how workers (job seekers) are searching for job opportunities. Nevertheless, developments in science in this area do not match the gains achieved in the firm's recruiting behavior. There is also good justification for carrying out studies on businesses' decisions to recruit employees. Knowledge of different business search behaviors is of considerable importance since it allows for the allocation of vacancies between different classes of unemployed and job seekers (Gorter et al., 1996). The recruitment behavior of a firm has different implications for labor market policy and educational policy to some extent.

The literature on firm search and recruiting spanned more than six decades, after Malm's analytical paper (1955). But studies in this area did not really start until the mid-1960s and early 1970s, with the pioneering work by Rees (1966), Rees and Shultz (1970), and Granovetter (1974). More specifically, Stigler (1962) set the stage in economic literature in which he

argued over the role of knowledge in the labor market. Rees (1966) explained the value of recruiting as information-generating tool. More recently, Montgomery (1991) underlined the use of social networks in an adverse selection model to describe the impact of social networks on labor market outcomes.

Essentially, organizational evaluations of the usage of various search channels and perceptions about job-seekers suitability contribute to asymmetric information¹ issues; job-seekers have better knowledge about their abilities than potential employers do. By making choices, firms are looking to optimize the expected present value of earnings (Behrenz, 2001). Such options are then used in operations which affect the expected productivity of the people employed. Akerlof (1970) concluded that the search channel option and applicant selection should be made with a view to the likelihood of recruiting 'lemons'².

Decisions requiring the use of various search channels may also lead to

asymmetric information. One search channel can provide information on applicants' history which varies from information provided by another channel. When systematically leveraging many different search channels, firms have a greater chance of seeking viable job-seekers early. The likelihood of a job seeker and a firm considering each other depends on the attribute behavior of all agents.

Data Sources & Methodology

This study focuses on Indian firms that use search facilities to select employees for jobs. An uneven distribution of firms across the country led us to select the location for the study. Indian firms are distributed unevenly across a particular location. They are concentrated in a few geographical units such as major urban agglomerations like Mumbai, Delhi, Bangalore and Hyderabad. The total number of firms present in the database was around 23,535 out of which 6,887 firms were present in multiple locations. We selected two global cities, namely, Mumbai and Hyderabad for our study and used the two cities as a separate group to have a proportional representation of firms across industries. Followed by randomly selected firms within the group to avoid researcher biases in the selection.

This research had six major phases: (1) development of the research design, (2) pilot testing, (3) data collection, (4) validation, (5) data entry and (6) analysis. The research design was descriptive in nature. Conforming to the basic can-

¹ Asymmetric information refers to a situation where the information of one party involved in a transaction is superior compared to another. This is often the case in transactions where the vendor knows more than the buyer. This could actually be a negative scenario because there is an advantage over one side.

² As suggested by Akerlof (1970), the Lemons Principle also casts light on the employment opportunities. Employers may refuse to hire members of any group for certain types of jobs. This decision may not reflect irrationality or prejudice but only profit maximization. The schooling system can give a better indicator of quality than other more superficial characteristics.

nons and protocols of research, the personal identities such as firm name are treated strictly confidential. The acceptable sample size was determined based on Daniel (1999)³. The sample size of 96 firms would suffice for estimation with a 10% error margin. We randomly chose firms from the list and subsequently completed 101 interview schedules. The survey was carried out in 2017-18.

Empirical Results

Rees (1966) found that collecting knowledge on job-seeker skills and qualifications (intensive information) usually involves considerable costs. Additional risks are associated with vacancies, since the company's costs are not fully utilized. A business that advertises a vacancy screening process is as follows: The company first contacts job-seekers who have obtained vacancy details (e.g., wage and other terms of employment). The aim of the interview is to provide a structure for evaluating the possible quality or value of job seekers to the company. More notably, the organization aims to hire job-seekers with the highest marginal product compared to the cost of employment. Table 1

The organization aims to hire job-seekers with the highest marginal product compared to the cost of employment.

(Panel A) shows that over the previous year > 90 per cent of firms agree that they had vacancies for managerial and non-managerial workforce. In comparison, 93 firms (92 percent) said that they had a vacancy for non-managers and 91 firms (90 percent) confirmed they had a vacancy for managers. The firms said they did not have any vacancy for only 10 per cent of the managerial workforce and 8 per cent of non-managerial workforce.

Table 1 (Panel B) demonstrates how vacancy knowledge is transmitted to job-seekers. The extensive use of indirect search platforms, such as those through 'employee referrals' and 'internal recruiting program,' are due to low channel access expense. These informal channels of searching will yield positive results when interviewing potential job seekers. So, this confirms that firms have hardly used 'temporary employment agencies' and 'walk-ins' in the case of managerial vacancies. It also confirms that companies did not use 'private employment agencies' for recruiting job seekers in the case of non-managerial vacancies.

The latter findings are consistent with those of an American study by Barron and Mellow (1982). American studies also researched how job-seekers get job-related knowledge and found that about 50% of all workers pursue their jobs by friends and family (Rees & Gray, 1982).

³ To calculate an appropriate sample size, we apply the formulae: $n = \frac{NZ^2 P(1-P)}{d^2(N-1) + Z^2 P(N-1)}$, where n delineates the sample size drawn from the finite population, Z represents the Z statistic for the 95% confidence level, P is the expected proportion that we are going to calculate, d indicates precision. A smaller d implies good precision or a smaller error of estimate and it should be in proportion to 1. If P is between 0.1 and 0.9, then it is appropriate to choose 5% precision (0.5). In this study, P=0.5, d=0.1, Z=1.96 and the sample size is 96.

Table 1 Vacancies, Sources of Information & Occurrence (n*=101)

Panel A: Firms Having Vacancies for Managerial and Non-managerial Workforce		
Vacancies	Managerial (%)	Non-managerial (%)
No	9.9	07.9
Yes	90.1	92.1
Total	100	100
Panel B: How Information about the Vacancy Is Spread ^a		
Search Channels	Managerial	Non-Managerial
Advertisements	32.7	23.8
Business relations	19.8	28.7
Campus recruitment	38.6	49.5
Internal recruitment services	50.5	68.3
Private employment agencies	50.5	-
Public employment agencies	9.9	37.6
Temporary employment agencies	5.0	63.4
Employee referrals	49.5	77.2
Walk-ins	9.9	68.3
Panel C: Reasons for Occurrence of Vacancies (n*=101) ^a		
Reason	Per cent	
Employee is on leave	01.9	
Applicant himself/herself contacted	12.9	
Employee changed position	29.7	
Employee retired	44.6	
Employer wants to expand a certain activity	77.2	
Employee leaves the organization	80.2	
Other reasons	04.9	

Note: ^a The percentages add up to >100 because some firms have stated more than just one reason for the occurrence of vacancies *n represents the total number of sample firms

Source: Field Survey conducted in Hyderabad and Mumbai

This type of search channel is cheap and yields decent results (Holzer, 1988). It has been noted, more precisely, that businesses tend to recruit staff on the basis of employee references (Montgomery, 1991). Thus, the search strategy of the firm or the use of a search channel is based on the knowledge acquired from prior recruitment, as Russo et al. (1997) pointed out that local factors are impor-

tant in the recruitment process. Similar types and differing job-seeker numbers appear to have access to various search channels. In addition, the potential gains of a special search process have to be compared to the costs expected.

Businesses tend to recruit staff on the basis of employee references

Firms recruit job seekers primarily for two reasons: first, because some employees have decided to quit and, second, because firms may want to increase their workforce or, in other words, they may want to expand their business. The explanations for the vacancies occurring are given in Table 1 (Panel C). One can note that when firms wish to increase their labor force they have somewhat less specific requirements than when their intention is to replace former employees. "Former employee leaves the organization" is the most common reason for the occurrence of a vacancy; "Employer wants to expand a certain activity", "Retirement of an employee" and "Employee changed position" are also common reasons behind vacancies. The table also indicates that firms have more than just one reason for the vacancy. Most of the vacancies caused by "other reasons" are for jobs of a limited duration or because of contractual jobs.

Russo et al. (1997) concluded that favorable labor market dynamics contribute to the use of multiple search channels, though a few search channels are used to attract job-seekers in places of high unemployment. In reality, they have concluded that the informal network results in the quickest recruitment process, although it takes a few weeks for ads and job office use. Quite importantly, Mortensen and Vishwanath (1994) reported that the use of informal search channels often results in recruitment with high wages.

Table 2 (Panel A) gives the duration of the search process in Indian firms.

Twelve per cent of the firms took <2 weeks' time to fill the positions of managerial jobs, because open positions have a high impact on business. The search duration for most of the firms ranges from 2 weeks to a month, for recruitment of both managerial staff (56 per cent) and non-managerial staff (64 per cent). The search duration for firms may also extend to 1-3 months; close to 17 per cent managerial and 21 per cent non-managerial staff were searched and recruited during this period. Further, close to 15 per cent of the firms took 3-6 months to search for managerial and non-managerial staff.

Those in charge of recruitment tend to select a search channel based on the duration of the search process (Russo et al., 2001). Currently, there are many search channels which offer to screen and interview applicants. There is no information as to how many job seekers apply per vacancy via different search channels. Table 2 (Panel B) shows the average number of jobseekers applied per vacancy using different search channels. On an average, the search process produces 45 job seekers per vacancy for managerial vacancies and 134 job seekers for non-managerial vacancies. Further, while screening or eliminating, they reduce the number of job seekers by using simple heuristics and experience rather than by using a checklist or a scoring matrix.

The search process produces 45 job seekers per vacancy for managerial vacancies and 134 job seekers for non-managerial vacancies.

Table 2: Duration of Search, Number of Job Seekers, Factors Causing Difficulties (n*=101)

Panel A: Duration of the Search Process in Firms		
Duration	Managerial	Non-managerial
<2 weeks	11.9	0
2 weeks to 1 month	56.4	64.4
1-3 months	16.8	20.8
3-6 months	14.9	14.9
Total	100	100
Panel B: Average Number of Job seekers apply per vacancy using different search channels		
Search Channels	Managerial	Non-managerial
Advertisements	13.3	13.4
Business relations	4.4	3.7
Campus recruitment	22.2	22.4
Internal recruitment services	22.2	22.4
Private employment agencies	17.8	7.5
Public employment agencies	00	3.7
Temporary employment agencies	4.4	6.7
Employee referral	11.1	9
Walk-Ins	4.4	11.2
Panel C: Factors that lead to difficulty in the search process for firms (n*=101) ^a		
Reasons for difficulty	Per cent	
Lack of poor career progression	4.0	
Small number of applicants generally	5.9	
Job entails shift work /long/unsocial/irregular hours	7.9	
Wages lower than that of other firms	14.9	
Applicants lack the basic ability to build upon	14.9	
Lack of qualifications the company demands	16.8	
Benefits trap/problem wage/benefits	17.8	
Location of the firm/poor public transport	18.8	
Too much competition from other employers	46.5	
Small number of applicants with the required attitude, motivation or personality	49.5	
Lack of work experience the company demands	52.5	
Lack of skills the company demands	84.2	

Note: ^a The percentages add up to >100 because some firms have stated more than just one reason for occurrence of vacancies *n represents the total number of sample firms

Source: Field Survey conducted in Hyderabad and Mumbai

It should be remembered that the responses in Table 2 (Panel C) were directly given by the firm's personnel in charge of the relevant recruiting process. It makes the responses more credible and precise. The table only includes statistics on the number of companies with

various conditions that contribute to difficulties in the search process. This would be necessary to continue the search process by looking at the reasons which contribute to problems in recruiting, according to the company, which may make the candidate specifically unsuit-

able for the position in question (i.e. the characteristics which, according to the employer, may be a reason for eliminating the applicant). 'Lack of skills the company demands' is the most common factor that leads to difficulty in the search process; 'Lack of work experience the company demands', 'small number of applicants with the required attitude, motivation or personality' and 'too much competition from other employers' are also common factors that lead to difficulty in the search process for firms. It is thus also evident that firms have more than just one reason for the vacancy.

Firm Search: Dimension & Determinant

There are several search channels available to firms for searching particular job seekers. The choice of search channels seems to depend on several firm characteristics and hiring standards. Firm search for a job seeker is most critical when there is an open position, because this means a loss in output and profits. Only limited studies have considered issues related to firm search. These include Barron and Bishop (1985); Barron, Bishop and Dunkelberg (1985); Barron, Black and Loewenstein (1987); van Ours (1989); and Burdett and Cunningham (1998).

Firms choose search channels for recruitment purposefully, which are likely determined by many factors. To understand policies that operate through the search channel, the paper requires an economic model. DeVaro (2003) proposed and estimated using the Multi-City Study of Urban Inequal-

ity (MCSUI) data. The model presented here offers a simple structure for understanding the determination of search channels at an anecdotal level. In this model, firms choose search channels in recognition of a trade-off between hiring speed and the quality of potential matches. For each firm in this study, the study observed nine methods that are being used for searching for most recent recruits. Table 3 shows search channels for managerial positions. No pair of methods appears to be substitutes in the sense that the use of one is associated with the less frequent use of the other.

It is important to understand that this correlation matrix answers the simple question as to which channels tend to be clubbed together. A correlation matrix cannot elucidate what methods tend to be clubbed together or used apart by similar firms. Therefore, when firm characteristics (e.g., location, industry, revenue, years of existence, number of employees, firm type, attitudes towards recruitment, structure of firms, percentage of management graduates and attrition rates) are kept constant, the question that arises is "Which search channels tend to be clubbed together and which tend to be used apart"? To answer this question, a multivariate probit analysis⁴, and simultaneously estimated

⁴ Multivariate probit has been historically a rare guest (rarely used) in applied work involving a large number of discrete choices, requiring as it does the computation of high-dimensional integrations of the multivariate normal density function. Moreover, the multivariate probit model also helps to generalize the probit model used to jointly estimate several correlated binary outcomes.

equations for each of the nine-search channels used by firms. The rationale for using multivariate probit was to yield unrestricted estimates of the full set of cross-equation correlations in the unobserved determinants of search channel choices. A close examination of these correlations provides insights into which search channels tend to be used together across firms with similar observable characteristics.

Specifically, the multivariate probit model is estimated as follows:

$$\text{Prob}(R_j = 1) = \Phi(\beta_j' x) \quad j = 1, 2, \dots, 9$$

where Φ is the standard normal cumulative distribution function (cdf); R_j is a dummy variable that equals 1 if the j^{th} search channel was used and 0 if this channel was not used; $\hat{\alpha}_j$ is a parameter vector in the j^{th} equation; and x is a vector of covariates that includes the general categories of firm characteristics such as location, industry, revenue, number of employees, percentage of management graduates, attrition rates, attitude of firms towards recruitment, organizational design, per cent of management graduates and attrition rates.

The application of multivariate probit envisions a continuous (normally distributed) latent index for each of the nine search channels. The most noteworthy difference pertains to informal search through employee referrals. Panel A clearly reveals that employee referral is different from other search channels. This channel tends to be clubbed with advertisements, internal recruitment ser-

vices and campus recruitment; it is also the only search channel that is negatively related to all other search channels except walk-ins.

Informal search channels through employee referrals can yield better matches than can formal search channels.

There is one possible interpretation of the negative relationship between advertisements and employee referrals among observably similar firms. This also explains a trade-off of matching quality and hiring speed in search channels. Although advertisements generate a large pool of job seekers, anyone who reads these advertisements is free to apply for the job. Therefore, the former channel provides no pre-screening of job seekers, and the expected match quality is likely to be low. DeVaro and Fields (2004) argued that both channels are associated with a longer vacancy duration and higher starting wages. Quite importantly, this is consistent with the notion that firms that favor search channels having these methods are likely to prefer match quality to hiring speed. Table 3 shows that informal channels such as employee referrals are probably different from advertisements. A plausible hypothesis is that informal search channels through employee referrals can yield better matches than can formal search channels (e.g. advertisements) because incentives are more likely to be aligned between the firm and its current employees in the case of managerial open positions.

Table 3 Search Channels Tend to Be Clubbed Together or Used Apart (n*=101)

Panel A: Phi Correlation Matrix for Search Channels used to Hire the Most Recent Managerial Positions

Search Channels	1	2	3	4	5	6	7	8	9
1. Employee Referrals	1								
2. Business Relations	-.16	1							
3. Walk-Ins	.00	.00	1						
4. Advertisements	-.23*	.18	-.05	1					
5. Temporary Employment Agencies	-.07	-.11	.23*	.32**	1				
6. Public Employment Agencies	-.00	-.25*	.03	-.19*	-.23*	1			
7. Internal Recruitment Services	-.33**	-.25*	.14	.01	.22*	.16	1		
8. Campus Recruitment	-.27**	.39**	-.17	-.03	-.18	.17	.02	1	
9. Private Employment Agencies	-.11	.25*	.33**	.12	-.07	-.00	-.33**	.07	1

Note: * and ** denote the statistical significance at the 5% and 1% levels, respectively, and b. cannot be computed because at least one of the variables is constant.

Source: Field Survey conducted in Hyderabad and Mumbai

*n represents the total number of sample firms

The paper now considers the effects of firm characteristics on search channels. Annexure 1 gives the marginal effects from individual probit equations estimated for each search channel for managerial positions. The probit estimates reveal a large number of statistically significant associations between each search choice and firm characteristics, location, industry, revenue, number of employees, attitude of the firms towards recruitment, organizational design, percentage of management graduates and attrition rates. In the interest of space, the number of commentaries is restricted to ten more interesting patterns that emerge:

- (1) Hyderabad firms are less likely than Mumbai firms to search for job seekers using employee referrals and advertisements. They are more likely to use walk-Ins, public employment agencies and internal recruitment services. This is consistent with a growing body of evidence that the work culture in Mumbai is systematically different from that in Hyderabad.
- (2) After controlling for firm characteristics, the probability of using any particular search channels does not vary much with the industry in which the firm operates. The service industry is less likely than the manufacturing industry to search for job seekers using employee referrals, walk-ins, public employment agencies and campus recruitment.

- (3) Firms with a revenue of Rs. 501-1000 crores are less likely to search for job seekers using business relations, advertisements, temporary employment agencies, public employment agencies and internal recruitment services. For managerial positions, firms with a revenue of Rs. 1001-5000 crores are more likely to use temporary employment agencies and private employment agencies than firms with a revenue of Rs. <500 crores. Firms with a revenue of Rs. >5001 crores use walk-ins and temporary employment agencies.
- There is a clear pattern in the types of search channels used by older firms compared to younger firms.**
- (4) There is a clear pattern in the types of search channels used by older firms compared to younger firms. Older firms are more likely to use advertisements and private employment agencies. When a managerial position requires to be filled, firms are less likely to rely on internal recruitment services and campus recruitment. Younger firms are likely to need to use public employment agencies to reach out to more job seekers.
- (5) Firms that have a sizeable number (i.e., 101-501) of employees are associated with a more frequent use of advertisements, temporary employment agencies. Firms with 501-1000 employees are more likely to use business relations, walk-ins, internal recruitment services and private employment agencies and are less likely to use employee referrals. Firm size-associated variable is statistically significant with respect to search channel equations.
- (6) The type of firm controls tends to be statistically significant. Relative to private companies, public listed companies have a statistically significant association with the probability of search through employee referrals, walk-ins and private employment agencies and are less likely to use business relations, internal recruitment services and campus recruitment for managerial positions.
- (7) The attitudes towards recruitment for a managerial position are clearly associated with the search channel chosen for searching and recruiting. All four attitudes are statistically significant in at least one search channel equation, and most are significant in more than one equation. Firms that believe recruitment does not cause much work are more likely to use business relations, temporary employment agencies and campus recruitment to search for managerial positions. Those who believe recruitment delivers motivated applicants are more likely to use internal recruitment services.
- (8) There is a clear pattern in the type of search channels used by organization structure. Machine organizations are less likely to use temporary employment agencies, campus recruitment and private employment agencies. Professional organizations are more

likely to use internal recruitment services and campus recruitment. Divisional organizations are not likely to use walk-ins, and private employment agencies.

- (9) There is a clear pattern in the type of search channels used by firms and percentage of managerial workforce. Firms with 6-10 per cent managerial workforce are less likely to use employee referrals and advertisements. They are more likely to use temporary employment agencies and internal recruitment services.

Finally, search methods used for obtaining managerial workforce are clearly associated with the attrition rate of the firm. Firms with >10 per cent attrition are less likely to use temporary employment agencies and internal recruitment services.

Conclusions

The paper tries to give an inclusive picture of ways in which Indian firms search for job seekers and the kind of job seekers they look for. It sheds light on reasons why vacancies occur and how information about vacancies is spread. The paper also looks at whether the search process takes longer than expected and factors leading to difficulty in searching for the right candidate. The different sub-sections in this paper can be summed in the light of earlier studies and their contributions.

A firm mainly searches for job seekers for two reasons: (1) an employee leaves the organization and (2) to expand

a certain firm activity. Internal recruitment services, public employment agencies and referrals by employees are the most powerful channels for the transfer of information to job-seekers. About 50 per cent of job seekers obtain information about the job through internal recruitment services, public employment agencies and employee referrals. Approximately 56 per cent for managerial and 65 per cent for non-managerial workforce searches were completed in less than a month. Firms also have difficulty in searching for the right candidate; 65 per cent and 39 per cent in the case of managerial and non-managerial workforce, respectively, said that they found it difficult to get the right candidate. Firm factors that cause difficulty in the search process can be summarized as: 'Lack of skills the company demands' is the most common factor that leads to difficulty in the search process; 'Lack of work experience the company demands', 'small number of applicants with the required attitude, motivation or personality' and 'too much competition from other employers' are also common factors.

The search choice strategy, as the sole means of obtaining job seekers, is thus an important problem a firm faces in the process of searching for new job seekers. Nonetheless, firm search behavior for job seekers is a relatively neglected area of empirical work in labor and personnel economics. Quite importantly, in the Indian context, there is no extensive database with sufficient details to answer these questions about search behavior of firms. This paper adds to the knowledge base of search behavior of firms and partially

bridges this gap in knowledge. The fact that a strong association between search channels and firm characteristics exists may seem hard to reconcile with standard theories of search determination. For potential studies, a full comprehension of the search process includes the convergence of the firm search decisions with the screening problem that the business encounters when choosing from within the pool of job seekers.

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Annexure 1 Effects of Search Choice on Managerial Jobs as Obtained from Individual Probit Models (n*=101)

	1	2	3	4	5	6	7	8	9
Location (Reference Category: Mumbai)									
Hyderabad	-.171 (.064*)	-.082 (.071)	.457 (.075**)	-.411 (.125**)	-.090 (.046)	.874 (.144**)	.488 (.076**)	.053 (.126)	.062 (.056)
Industry (Reference Category: Manufacturing)									
Service Industry	-.136 (.058)	.045 (.064)	-.137 (.068)	.169 (.113)	.001 (.042)	-.187 (.130)	-.042 (.068)	-.128 (.120)	.097 (.051)
Revenue (Reference Category: Up to Rs 500 Crores)									
Rs501-1000 Crores	.068 (.109)	-.024 (.121)	.203 (.128)	-.240 (.213)	-.129 (.079)	-.099 (.245)	-.148 (.129)	.071 (.209)	.177 (.096)
1001-5000 Crores	.273 (.151)	-.271 (.168)	.134 (.178)	.320 (.295)	.366 (.109**)	-.308 (.339)	-.629 (.178**)	.224 (.290)	.732 (.132**)
>5001 Crores	-.260 (.088**)	-.766 (.098**)	.549 (.104**)	-.324 (.172)	.216 (.064**)	.177 (.198)	1.24 (.104**)	-.524 (.176**)	-.302 (.077**)
Years of Existence (Reference Category: Up to 5 Years)									
6-10 Years	-.817 (.102**)	1.29 (.114**)	.412 (.120**)	-.561 (.200*)	.267 (.074**)	-.566 (.230)	.229 (.121)	.598 (.205**)	.008 (.090)
e"11 Years	.128 (.067)	-.084 (.074)	-.148 (.079)	.519 (.131**)	.427 (.048)	-.478 (.150**)	-.252 (.079**)	-.407 (.129**)	.172 (.059**)
Size (Reference Category: Up to 100 employees)									
101-500 employees	.140 (.197)	-.996 (.220**)	-.770 (.232**)	1.305 (.385**)	.111 (.143**)	-.138 (.443)	.564 (.233)	-.114 (.398)	-.731 (.173**)
501-1000 employees	-.930 (.133**)	.450 (.148**)	1.16 (.157**)	-.268 (.260)	.218 (.097)	.157 (.299)	.474 (.157**)	.687 (.261)	.540 (.117**)
e"1001 employees	-.867 (.087**)	.928 (.097**)	.293 (.102*)	.155 (.170)	.056 (.063)	.354 (.195)	.502 (.103**)	1.22 (.168**)	.338 (.076**)
Type of Firm (Reference Category: Private Listed)									
Publicly Listed	.278 (.053**)	-.292 (.059**)	.377 (.062**)	.086 (.104)	.083 (.038)	-.081 (.119)	-.325 (.063**)	-.296 (.102**)	.149 (.046**)
Recruitment Attitude (Reference Category: Recruitment should be expensive)									
Recruitment should not be expensive	.055 (.093)	-.318 (.103**)	-.121 (.109)	-.043 (.182)	-.318 (.067**)	-.108 (.209)	-.155 (.110)	-.167 (.179)	-.153 (.082)

Recruitment Attitude (Reference Category: Recruitment causes much work) <i>Recruitment should not cause much work</i>	-.010 (.072)	.360 (.080**)	.145 (.084)	-.333 (.140)	.320 (.052**)	.150 (.161)	.146 (.085)	.462 (.138**)	.085 (.063)
Recruitment Attitude (Reference Category: Recruitment does not deliver motivated applicants) <i>Recruitment delivers motivated applicants</i>	-.226 (.155)	.126 (.173)	-1.54 (.183**)	.586 (.304)	-.329 (.113**)	.534 (.349)	1.63 (.184**)	-.814 (.305*)	-1.29 (.136**)
Recruitment Attitude (Reference Category: Recruitment does not deliver applicants quickly) <i>Recruitment delivers applicants quickly</i>	.301 (.264)	-.533 (.119**)	.076 (.160)	1.024 (.266**)	.144 (.098)	-.564 (.305)	-1.62 (.161**)		-.600
Structure (Reference Category: Entrepreneurial Organization) <i>Machine Organization</i>	.207 (.100)	-.028 (.111)	-.220 (.118)	-.428 (.196)	-.568 (.072**)	.047 (.225)	.095 (.118)	-.709 (.192**)	-.448 (.088**)
<i>Professional Organization</i>	-.181 (.107)	-.158 (.120)	-.572 (.126**)	-.928 (.210**)	-.404 (.078**)	.373 (.242)	1.42 (.127**)	.081 (.208)	-.846 (.094**)
<i>Divisional Organization</i>	.139 (.108)	-.208 (.120)	-.965 (.127**)	-.112 (.210)	-.098 (.078)	.152 (.242)	.536 (.127**)	.561 (.208*)	-.660 (.094**)
<i>Innovative Organization</i>	.368 (.143)	-.767 (.159**)	-.412 (.168)	-.623 (.279)	-.418 (.104**)	-.025 (.321)	-.252 (.169)	.119 (.276)	-.380 (.126**)
Per cent of Managerial work force (Reference Category: up to 5% of Managerial work force) <i>6-10 % of Managerial work force</i>	-.511 (.084**)	.023 (.094)	-.182 (.099)	-.569 (.165**)	.172 (.061*)	.418 (.190)	.849 (.100**)	.375 (.163)	.183 (.074)
<i>> 10 % of Managerial work force</i>	-.278 (.066**)	-.036 (.073)	-.052 (.077)	-.391 (.128**)	.120 (.047)	.351 (.148)	-.127 (.078)	.233 (.127)	.105 (.058)
Attrition (Reference Category: Attrition up to 9%) <i>Attrition > 10%</i>	.195 (.064**)	-.014 (.071)	.599 (.075**)	-.074 (.125)	-.167 (.046**)	.395 (.144*)	-.328 (.076**)	.286 (.123)	.482 (.056**)
N	101	101	101	101	101	101	101	101	101
R ²	0.835	0.885	0.918	0.745	0.835	0.704	0.918	0.777	0.872

Note: 1) Standard errors are next to coefficients, ** and * indicate significance at the 5% and 10% levels respectively. 2) Cols 1. Employee Referrals, 2. Business Relations, 3. Walk-Ins, 4. Advertisements, 5. Temporary Employment Agencies, 6. Public Employment Agencies, 7. Internal Recruitment Service, 8. Campus Recruitment, 9. Private Employment Agencies