



Method and System for Ranking and Rating Employees

Technical Field

This invention relates to a method and system for ranking and/or rating employees
5 (potential and actual) and more particularly, but not exclusively, refers to a method and system for matching potential employees with potential employment.

Background

Presently, the matching of potential employees (especially hourly or daily-rated high
10 volume temporary or short-term employees) with potential employers offering job opportunities is predominantly a manual task. This includes identifying and ranking of appropriately-skilled employees; the contacting those employees with job offers; the accepting of the job offer by those employees; and the management of their training, payment and performance review. In many instances there are no clearly defined
15 systems, processes or guidelines to follow.

There is a need for an automated, easy-to-use, methods and systems where potential employees can be ranked according to a number of predetermined criteria and then matched with potential employers. Preferably it would include the subsequent training
20 and management of those employees. This observation is especially valid for hourly or daily-rated, high-volume, short-term or temporary employees.

Summary

According to an exemplary aspect there is provided a method for ranking at least one
25 employee for at least one job availability. The method comprises using a computer system to rank suitable potential employees registered on the computer system for the at least one job availability according to at least one ranking factor. The computer system forwarding a message to machines of a number of eligible employees of the potential employees, the message containing information regarding the at least one job
30 availability. The number of the eligible employees being a number of vacancies for the at least one job availability multiplied by a contact success ratio. The number of the eligible employees being those of the potential employees registered on the computer



system with the highest ranking scores. The computer system receives responses from the machines of a plurality of the eligible employees. The computer system engages some of those of the plurality of employees according to at least one predetermined criterion.

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According to another exemplary aspect there is provided a system for rating employees for at least one job availability. The system comprises a computer system. The computer system is adapted to receive input from at least one employee machine and at least one employer machine. The computer system comprises an employee ranking engine to rank
 10 suitable potential employees registered on an employee database for the at least one job availability according to at least one ranking factor; at least one application server, at least one database server with the employee database and an employer/job database, an employee rating engine, and a messaging engine to send a message to machines of a number of eligible employees of the potential employees. The message contains
 15 information regarding the at least one job availability. The number of the eligible employees is a number of vacancies for the at least one job availability multiplied by a contact success ratio. The number of the eligible employees being those of the potential employees registered on the computer system with the highest ranking scores. The messaging engine is also able to receive responses from the machines of a plurality of
 20 the eligible employees.

For both aspects, the at least one ranking factor may be at least one selected from: skills, skills level, education level, educational qualifications, past work experience, past work references, work attitude rating by past employers, work attitude rating by present
 25 recruitment agents, work attitude rating by past recruitment agents, speed of response to job posting on the job matching portal, speed of response to job availability on the job matching portal, regularity in updating their particulars, regularity in updating a date and a time of availability, and take-up rate for available jobs.

30 Take-up rate for available jobs may be a number of times a potential employee is informed of an available job against the number of times the potential employee accepts the job. The at least one job availability may be registered with the computer system. At

least one of the following data sets may be provided to the computer system: employer details, number of employees required, start date, end date (if relevant), working hours, salary, job description, job nature, specific skills required, and job location.

- 5 The contact success ratio may be determined by the computer system based on a moving-average of historical contact success. The historical contact success may be the number of job availabilities made against responses accepting the job availability. The moving average of historical contact success may be over a period selected from: one month, three months, six months, and twelve months.

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Each job availability may have a time associated with it so that responses from each of the plurality of eligible employees to whom the job availability message is sent must respond within that time, or their response will not be considered. If the plurality of eligible employees is of a lesser number than the number of vacancies thus giving a
15 shortfall number, the message may be sent to a further number of eligible employees. The further number may be the shortfall number multiplied by the contact success ratio.

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If the plurality of eligible employees exceeds the number of vacancies, the computer system may again rank the plurality of employees according to the at least one ranking factor. Those of the plurality of employees with the highest ranking score are engaged,
the number engaged being equal to the number of vacancies.

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The computer system may send a final message to the machines of the plurality of eligible employees whether or not they were successful. The computer system may send
to the machines of those engaged employees complete job details by a further message. Those engaged may undergo online training and briefing by use of the computer system.

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On a first day of work and at, just prior to, or immediately after commencement, the computer system may receive from the machine of each of those engaged a
commencement message to update the computer system of commencement of work. The computer system may receive time sheets from each of those engaged during their working period. The time sheets may be verified and approved by at least one of: an

employer machine, and a recruitment agent machine. Once those engaged have completed their job assignment, the computer system may receive employee ratings from at least one of: the employer machine and the recruitment agent machine

- 5 Each of the at least one ranking factors may have a plurality of discrete scores that represent a level of satisfaction of each ranking factor. Each of the at least one ranking factors may be adjusted by the computer system according to pre-determined weights. Each of the at least one ranking factors may have its own benchmark that determines the scoring for that ranking factor.

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To resolve ranking ties when the computer system has determined that the number of eligible employees is greater than the number of vacancies for the at least one job availability multiplied by the contact success ratio due to ranking ties, the number of eligible employees may exceed the number of vacancies for the at least one job

- 15 availability multiplied by the contact success ratio but only to an extent required to resolve the ranking ties.

- The number of eligible employees to be engaged may exceed the number of vacancies due to ranking ties. An absolute timing for the speed of response to the message may be
20 used by the computer system as a tie-breaker.

- The employee ratings may be according to at least one selected from: working attitude of employee, quality of work done by employee, skill level of employee, punctuality of employee, and overall conduct of employee; each carrying a choice of discrete scores
25 that represent the employer's level of satisfaction.

All messages may be sent by at least one of: email, instant messaging, SMS, and MMS.

Brief Description of the Drawings

- 30 In order that the invention may be fully understood and readily put into practical effect there shall now be described by way of non-limitative example only exemplary

embodiments, the description being with reference to the accompanying illustrative drawings.

In the drawings:

- 5 Figure 1 is an illustration of an exemplary embodiment of a system architecture;
Figure 2 is a flow chart for the operation of the exemplary embodiment of Figure 1;
Figure 3 is a flow chart for an exemplary employee ranking system; and
Figure 4 is a flow chart for an exemplary employee rating system.

10 **Detailed Description of the Exemplary Embodiments**

The purpose of the exemplary embodiments is to provide employees and employers/recruitment agents with the ability to automatically and systematically match potential employees to job openings notified by potential employers using a job matching portal.

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Employers/recruitment agents will submit requirements for available jobs directly onto the job matching portal.

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Alerts for job availability or openings will be sent to potential employees by use of a message that may be SMS/MMS/email/instant messaging/or any other form of text and/or graphic messaging. This will be sequentially, based on a set of predetermined employee ranking criteria.

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The predetermined employee ranking criteria may be based on one or more of the employee's:

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- 1) skills;
- 2) skills level;
- 3) education level;
- 4) educational qualifications;
- 5) past work experience;
- 6) past work references;
- 7) work attitude rating by past employers;

- 8) work attitude rating by present recruitment agents;
- 9) work attitude rating by past recruitment agents;
- 10) speed of response to job posting on the job matching portal;
- 11) speed of response to job availability on the job matching portal;
- 5 12) regularity in updating their particulars including, but not limited to, a date and a time of availability; and
- 13) take-up rate for available jobs (i.e. the number of times the employee is informed of an available job vs. the number of times the employee accepts the job offer.

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After a potential or actual employee has taking up the notified job availability or opening, they may again or continued to be ranked based on the above ranking criteria. This would be especially so if the number of employees applying for a job availability or opening exceeds the number of vacancies. The number of employees confirmed for

15 any job availability or opening will depend on the number of job openings available. All confirmed employees will conduct their employee-related services such as, for example, training, briefing, time-sheet submission, performance review, and so forth, via the portal. This will require minimal direct human intervention.

- 20 As shown in Figure 1, a number of employee client machines 110 may be connectable to the job matching system 120 by use of the Internet 130. Also, a number of employer client machines 140 and recruitment agent client machines 150 may be connectable to the job matching system 120 also by use of the Internet 130. Employer machines 140, recruitment agent machines 150 and employee machines 110 do not communicate
- 25 directly with each other and all communication is through the job matching system 120. The job matching system 120 includes application servers 121, database servers 122, employee ranking engine 123, employee rating engine 124 and messaging engine 125.

- 30 As shown in Figure 2, each employee machine 110 must first register (200) with the matching system 120 before being able to use the system 120. A verification message, including an account activation code, will be sent by messaging engine 125 to the account of the employee machine 110 upon completion of the initial registration,

together with a unique identifier for the account. The unique identifier may be the employee's NRIC number, driver's license number, social security number, tax file number, and so forth. Employee machines that have been blacklisted and/or barred from registering with the job matching system will be informed accordingly by the system.

- 5 The system may or may not reveal to the employee machine(s) the reason for rejecting their registration.

The message, and all subsequent messages, may be any suitable form of message including, but not limited to: email, and instant messaging. Alternatively, the message
10 may be sent to a mobile, telecommunications-enabled device such as, for example, a mobile telephone, PDA, laptop computer, notebook computer, tablet computer, pull email device such as a "BLACKBERRY", and so forth. In that case the message may be an email, instant messaging, SMS, MMS, and so forth.

- 15 After completion of account activation, the machine 110 can proceed to update the system 120 with the necessary information in order to facilitate the matching of potential employees with potential employers. Information will include one or more of: employee's skills and the level of those skills; employee's education level; employee's past work experience; employee's past work references; employee's work attitude rating
20 by past employers; employee's work attitude rating by past or present recruitment agents; employee's speed of response to job availability or posting on the job matching portal; employee's regularity in updating his particulars including, but not limited to a date and a time of availability; employee's take-up rate for available jobs (i.e. the number of times the employee is informed of an available job vs. the number of times
25 the employee accepts the job offer; educational qualifications, past job experiences, job preferences, expected salary range, and so forth. This is stored in employee database 122(b) of database server 122.

Employer machines 140 are also required to register with the system 120. During their
30 registration, basic information about the business is provided to the system 120 and stored in database 122. The basic information required may include, for example: full business name, company registration number (to serve as unique identifier), business

nature, business address(s), contact person (with the associated contact number and email account), preferred login ID and password, and so forth. This is stored in the employer/job database 122(a) of the database server 122. All requests for registration submitted by employer machines 140 are subject to review by the administrator(s) of the job matching system 120 for reliability. For example, registrations from “undesirable” employers or employers that have been blacklisted previously will not be allowed.

Recruitment agent machines 150 do not need to register as their access is granted on the basis of the functions they perform for the system 120.

Employer machines 140 or recruitment agent machines 150 will submit the requirements for any job availability or openings directly to the job matching system 120 (202). All necessary information or data pertaining to a job availability or opening will be provided. That information or data may depend on the nature of the job but may include, for example, employer details, number of employees required, start date, end date (if relevant), working hours, salary, job description, job nature, specific skills required, job location, and so forth. If any necessary information or data is omitted or entered erroneously – for example, the start date may be in the past or too distant into the future (e.g. > 6 months from current date), or if the salary offered far exceeds the range of salary offered in the past for similar job openings (based on job data stored in the job database 122(a) – the job matching system 120 will prompt machine 140 or machine 150 to correct and/or verify it, before the job offers and/or requests are accepted by the system 120. The job data is stored in the employer/job database 122(a) of the database server 122.

Once a job availability or opening has been accepted by the job matching system 120, the system 120 will use the database server 122 to search the employee database 122(b) for all available and eligible employees (204). The shortlisted employees will be ranked by the system according to a predetermined set of criteria. The criteria will vary according to the job. For example, the criteria for a person to clear litter from public parks will be different to those for a person to serve in a fast-food restaurant. However,

they will, in general, include one or more of the ranking criteria given above. Each criterion may be weighted so those criteria that are important for the job are given a higher weighting than those that are less important.

- 5 From this search the system 120 extracts those employees who satisfy the predetermined criteria. They are ordered with those who have the highest ranking being those considered first. The system 120 uses the message engine 125 to send a message to the employee machine 110 with advice of the availability or opening of the job. Machines 110 of higher-ranked employees will be the first to receive the advice and the
10 number of employee machines 110 the system 120 will contact will depend on the total number of employees required for the job the subject of the advice, multiplied by a contact success ratio.

- The contact success ratio is determined by the system 120 based on a 1, 3, 6 or 12-
15 month moving-average of historical contact success. This is the number of job availability or openings made vs. actual positive responses (i.e. the contacted employees accept the job availability or opening). If, historically, twenty positive responses were received for every hundred job availability or opening to employees made, the contact success ratio will be $100:20 = 5$. Therefore, the number of employees to be advised of
20 the job availability or opening at the initial stage will be multiplied by five. If the required number of employees is ten, the total number of job availability or openings made at this stage will be fifty. Each job availability or opening has a time associated with it so that responses by each employee to whom the job availability or opening is made must respond within that time, or their response will not be considered.

- 25 Each employee machine 110 that receives the advice of the job availability or opening and which replies within the time either accepts or declines the job availability or opening (206). In the event that only eight employees accept the job availability or opening (i.e. shortfall of two employees), additional employee machines 110 will be
30 contacted with the job availability or opening. In the second round, the number of advices of the availability or opening made will be the shortfall number multiplied by the contact success ratio – i.e. 2×5 in the example given above. Contact of employee's

machines 110 by the system 120 will continue until the number of employees required is met or exceeded.

5 In the event that the number of employees accepting the job availability or opening exceeds the number of employees required, all employees will be ranked again (208). The “excess” employees will be rejected by the system and “recycled” back into the employee database for future job availability or openings (210).

10 All employee machines 110 that respond positively to the job availability or opening will be informed by the system 120 by a message whether or not they were successful.

Machines 110 of successful employees will receive the complete job details by a message. They may be required to undergo online training/briefing via the job matching portal (212). If necessary, classroom-based/instructor-led training may also
15 be conducted.

On the first day of work and at, just prior to, or immediately after commencement, the employee's machine 110 is expected to send a message to update the system 120 that of commencement of work (214). This may be by a message as stated above, or by
20 logging onto the job matching portal, and so forth.

During the course of work, the employee will submit their time-sheet electronically to the job matching portal (216). The electronically submitted time-sheet may be verified and approved electronically – by either the employer machine 140 or recruitment agent
25 machine 150 – or via printed hardcopy.

Once the employee has completed their job assignment (218), the employer machine 140 (or recruitment agent machine 150) may submit the employee rating to the job matching system 120 (220).

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As shown in Figure 3, the predetermined employee ranking criteria may be based on the factors given above. Each of these criteria will carry a choice of discrete scores that

- represent the level of satisfaction of the different aspects. For example, the scores may be 3, 2, 1, 0, & -1 representing “excellent”, “very good”, “good”, “acceptable” and “not acceptable” respectively. The employee ranking engine 123 will compute the benchmark score using the pre-determined benchmark scores (301) for each ranking criterion, followed by the summation of the benchmark scores further adjusted by pre-determined weights (301). The benchmark scores and weights may be different for different jobs or job categories, and would not be known to the employees being ranked. The weighted scores are then computed (302) and the employee ranking derived (303).

Ranking Criteria	Score: 3 = excellent, 2 = very good, 1 = good, 0 = acceptable, -1 = unacceptable	Weighting
Skills/education level	2	15%
Past work experience/references	2	25%
Employee rating *	2	25%
Speed of response to job availability	1	15%
Regularity of updating system	0	5%
Take-up rate for available jobs	1	15%

- * score obtained directly from employee rating database The overall score for this employee ranking will then be determined as:

$$\Sigma (2 \times 0.15, 2 \times 0.25, 2 \times 0.25, 1 \times 0.15, 0 \times 0.05, 1 \times 0.15) = 1.65$$

- Each ranking criterion has its own benchmark that will determine the scoring for that criterion. Examples are:

1. The benchmark score for past work experience/references:
 Score = 3; has worked in similar jobs and has an employee rating of > 2
 Score = 2; has worked in similar jobs and has an employee rating of > 1.5, or has not worked in similar job and has an employee rating > 2
 Score = 1; has worked in similar jobs and has an employee rating of > 1, or has not worked in similar job and has an employee rating > 1.5
 Score = 0; has worked in similar jobs and has an employee rating of > 0.5, or has not worked in similar job and has an employee rating > 1

Score = -1; has not worked in similar jobs, or has no employee rating, or both

2. Benchmark score for speed of response to job availability

Score = 3; Less than 0.5 hour of job alert

5 Score = 2; Between 0.5 to 1 hour of job alert

Score = 1; Between 1 to 2 hours of job alert

Score = 0; Between 2 to 4 hours of job alert

Score = -1; More than 4 hours of job alert

10 These are for illustration purposes. They may vary from job-to-job, and are subject to regular reviews. Furthermore, there may be changes dictated by market conditions and requirements.

If after investigation (300), the benchmark scores and/or weightings may need to be
15 changed for a particular job or job category. In that case the new benchmark scores (305) and/or weightings (304) are determined and then added to the database of the engine 123. They are then used in (301) as described above.

To resolving ranking ties when the job matching system 120 has determined that the
20 number of potential employees to be contacted is greater than the determined number due to ranking ties, the number to be contacted may be exceeded but only to an extent required to resolve the ranking ties. In this way the excess number is minimized. For example, if the system 120 determines that fifty employees are to be contacted with
25 advice of a job availability or opening, and there are four employees tied in position 49 of the employee ranking, all those four employees, together with the 48 other higher-ranked employees, will be contacted by the system 120. But those below the four will not be contacted, at least at the initial stage.

Similarly, to resolve ranking ties when the number of employees wanting a job
30 availability or opening exceeds the number of vacancies for that job, the ranking of each employee is used so that those with the lower rankings will not be accepted. In the event where there are ranking ties, for example, two or more employees having similar

employee ranking scores, the absolute timing for the speed of response to job availability will be the tie-breaker, i.e. the employee who responded quickest to the advice of the job availability or opening will get the job.

- 5 Employee rating by the employer and/or recruitment agent is shown in Figure 4. Employee rating may be submitted by the employer machines 140 by the use of an online questionnaire. There will be a number of questions that pertain to, for example:

- 1) working attitude of employee;
- 2) quality of work done by employee;
- 10 3) skill level of employee;
- 4) punctuality of employee; and
- 5) overall conduct of employee

- Each of these questions will carry a choice of discrete scores that represent the employer's level of satisfaction by the different aspects. For example, the scores may be
- 15 3, 2, 1, 0, & -1 representing "excellent", "very good", "good", "acceptable" and "not acceptable" respectively. The employee rating engine 124 will compute an overall score using the responses to these questions. This may be by, for example, a summation of the scores further adjusted by pre-determined weights (401). The questions and weights may be different for different jobs or job categories, and would not be known to the
- 20 employer providing the feedback. The weighted scores are then computed (402).

The following example illustrates this:

Question	Score: 3 = excellent, 2 = very good, 1 = good, 0 = acceptable, -1 = unacceptable	Weighting
Working attitude of employee	2	30%
Quality of work done by employee	3	30%
Skill level of employee	2	20%
Punctuality of employee	1	10%
Overall conduct of employee	2	10%

The overall score for this particular employee rating will then be computed as:

$\Sigma (2 \times 0.3, 3 \times 0.3, 2 \times 0.2, 1 \times 0.1, 2 \times 0.1) = 2.00$. This score will then be incorporated together with the current employee rating in the employee rating database (405). The new rating is then computed (404) and then sent as the updated employee rating to the employee rating database (406).

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If, after investigation (400), the weightings need to be changed for a particular job or job category, the new weights are determined (407) and added to the database (408). They are then used in (401).

- 10 Whilst there has been described in the foregoing description exemplary embodiments of the present invention, it will be understood by those skilled in the technology concerned that many variations in details of design, construction and/or operation may be made without departing from the present invention.

The Claims:

1. A method for ranking at least one employees for at least one job availability, the method comprising:
 - a computer system ranking suitable potential employees registered on the computer system for the at least one job availability according to at least one ranking factor;
 - the computer system forwarding a message to machines of a number of eligible employees of the potential employees, the message containing information regarding the at least one job availability, the number of the eligible employees being a number of vacancies for the at least one job availability multiplied by a contact success ratio;
 - the number of the eligible employees being those of the potential employees registered on the computer system with the highest ranking scores;
 - the computer system receiving responses from the machines of a plurality of the eligible employees; and
 - engaging some of those of the plurality of employees according to at least one predetermined criterion.
2. A method as claimed in claim 1, wherein the at least one ranking factor is at least one selected from the group consisting of: skills, skills level, education level, educational qualifications, past work experience, past work references, work attitude rating by past employers, work attitude rating by present recruitment agents, work attitude rating by past recruitment agents, speed of response to job posting on the job matching portal, speed of response to job availability on the job matching portal, regularity in updating their particulars, regularity in updating a date and a time of availability, and take-up rate for available jobs.
3. A method as claimed in claim 2, wherein take-up rate for available jobs is a number of times a potential employee is informed of an available job against the number of times the potential employee accepts the job.
4. A method as claimed in any one of claims 1 to 3, wherein the at least one job availability is registered with the computer system and at least one of the

following data sets is provided to the computer system: employer details, number of employees required, start date, end date (if relevant), working hours, salary, job description, job nature, specific skills required, and job location.

- 5 5. A method as claimed in any one of claims 1 to 4, wherein the contact success ratio is determined by the computer system based on a moving-average of historical contact success.
6. A method as claimed in claim 5, wherein historical contact success is the number of job availabilities made against responses accepting the job availability.
- 10 7. A method as claimed in claim 5 or claim 6, wherein the moving average of historical contact success is over a period selected from the group consisting of: one month, three months, six months, and twelve months.
8. A method as claimed in any one of claims 1 to 7, wherein each job availability has a time associated with it so that responses from each of the plurality of eligible employees to whom the job availability message is sent must respond within that time, or their response will not be considered.
- 15 9. A method as claimed in any one of claims 1 to 8, wherein if the plurality of eligible employees is of a lesser number than the number of vacancies giving a shortfall number, the message is sent to a further number of eligible employees, the further number being the shortfall number multiplied by the contact success ratio.
- 20 10. A method as claimed in any one of claims 1 to 8, wherein if the plurality of eligible employees exceeds the number of vacancies, the computer system again ranks the plurality of employees according to the at least one ranking factor and those of the plurality of employees with the highest ranking score are engaged, the number engaged being equal to the number of vacancies.
- 25 11. A method as claimed in any one of claims 1 to 10, wherein the computer system sends a final message to the machines of the plurality of eligible employees whether or not they were successful.
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12. A method as claimed in any one of claims 1 to 11, wherein the computer system sends to the machines of those engaged employees complete job details by a further message.
13. A method as claimed in claim 12, wherein those engaged undergo online training and briefing by use of the computer system.
14. A method as claimed in any one of claims 1 to 13, wherein on a first day of work and at, just prior to, or immediately after commencement, the computer system receives from the machine of each of those engaged a commencement message to update the computer system of commencement of work.
15. A method as claimed in claim 14, wherein the computer system receives time sheets from each of those engaged during their working period, the time sheets being verified and approved by at least one of: an employer machine, and a recruitment agent machine.
16. A method as claimed in claim 15, wherein once those engaged have completed their job assignment, the computer system receives employee ratings from at least one of: the employer machine and the recruitment agent machine.
17. A method as claimed in any one of claims 1 to 16, wherein each of the at least one ranking factors has a plurality of discrete scores that represent a level of satisfaction of each ranking factor; each of the at least one ranking factors being adjusted by the computer system according to pre-determined weights.
18. A method as claimed in claim 17, wherein each of the at least one ranking factors has its own benchmark that determines the scoring for that ranking factor.
19. A method as claimed in any one of claims 1 to 18, wherein to resolve ranking ties when the computer system has determined that the number of eligible employees is greater than the number of vacancies for the at least one job availability multiplied by the contact success ratio due to ranking ties, the number of eligible employees may exceed the number of vacancies

for the at least one job availability multiplied by the contact success ratio but only to an extent required to resolve the ranking ties.

20. A method as claimed in claim 10, wherein the number of eligible employees to be engaged exceeds the number of vacancies due to ranking ties, an absolute timing for the speed of response to the message is used by the computer system as a tie-breaker.
21. A method as claimed in claim 16, wherein the employee ratings are according to at least one selected from the group consisting of: working attitude of employee, quality of work done by employee, skill level of employee, punctuality of employee, and overall conduct of employee; each carrying a choice of discrete scores that represent the employer's level of satisfaction.
22. A method as claimed in any one of claims 1 to 21, wherein all messages are sent by at least one of: email, instant messaging, SMS, and MMS.
23. A system for rating employees for at least one job availability, the system comprising:
 - a computer system, the computer system being adapted to receive input from at least one employee machine and at least one employer machine; the computer system comprising:
 - an employee ranking engine to rank suitable potential employees registered on an employee database for the at least one job availability according to at least one ranking factor;
 - at least one application server,
 - at least one database server with the employee database and an employer/job database,
 - an employee rating engine, and
 - a messaging engine to send a message to machines of a number of eligible employees of the potential employees, the message containing information regarding the at least one job availability, the number of the eligible employees being a number of vacancies for the at least one job availability multiplied by a contact success ratio; the number of the eligible employees being those of the

potential employees registered on the computer system with the highest ranking scores;

the messaging engine also being to receive responses from the machines of a plurality of the eligible employees.

- 5 24. A system as claimed in claim 23, wherein the at least one ranking factor is at least one selected from the group consisting of: skills, skills level, education level, educational qualifications, past work experience, past work references, work attitude rating by past employers, work attitude rating by present recruitment agents, work attitude rating by past recruitment agents, speed of response to job posting on the job matching portal, speed of response to job availability on the job matching portal, regularity in updating their particulars, regularity in updating a date and a time of availability, and take-up rate for available jobs.
- 10 25. A system as claimed in claim 24, wherein take-up rate for available jobs is a number of times a potential employee is informed of an available job against the number of times the potential employee accepts the job.
- 15 26. A system as claimed in any one of claims 23 to 25, wherein the at least one job availability is registered with the job database and at least one of the following data sets is provided to the job database: employer details, number of employees required, start date, end date (if relevant), working hours, salary, job description, job nature, specific skills required, and job location.
- 20 27. A system as claimed in any one of claims 23 to 26, wherein the contact success ratio is determined by the application server based on a moving-average of historical contact success.
- 25 28. A system as claimed in claim 27, wherein historical contact success is the number of job availabilities made against responses accepting the job availability.
- 30 29. A system as claimed in claim 27 or claim 28, wherein the moving average of historical contact success is over a period selected from the group consisting of: one month, three months, six months, and twelve months.
- 30 30. A system as claimed in any one of claims 23 to 29, wherein each job availability has a time associated with it so that responses from each of the

plurality of eligible employees to whom the job availability message is sent must respond within that time, or their response will not be considered.

31. A system as claimed in any one of claims 23 to 30, wherein if the plurality of eligible employees is of a lesser number than the number of vacancies giving a shortfall number, the message engine is used to send the message to a further number of eligible employees, the further number being the shortfall number multiplied by the contact success ratio.
32. A system as claimed in any one of claims 23 to 30, wherein if the plurality of eligible employees exceeds the number of vacancies, the employee ranking engine again ranks the plurality of employees according to the at least one ranking factor and those of the plurality of employees with the highest ranking score are engaged, the number engaged being equal to the number of vacancies.
33. A system as claimed in any one of claims 23 to 32, wherein the message engine sends a final message to the machines of the plurality of eligible employees whether or not they were successful.
34. A system as claimed in claim 32, wherein the message engine sends to the machines of those engaged employees complete job details by a further message.
35. A system as claimed in any one of claims 31 to 34, wherein once those engaged have completed their job assignment, the rating engine receives employee ratings from at least one of: an employer machine and a recruitment agent machine.
36. A system as claimed in any one of claims 23 to 135, wherein each of the at least one ranking factors has a plurality of discrete scores that represent a level of satisfaction of each ranking factor; each of the at least one ranking factors being adjusted by the ranking engine according to pre-determined weights.
37. A system as claimed in claim 36, wherein each of the at least one ranking factors has its own benchmark that determines the scoring for that ranking factor.

38. A system as claimed in any one of claims 23 to 37, wherein to resolve ranking ties when the computer system has determined that the number of eligible employees is greater than the number of vacancies for the at least one job availability multiplied by the contact success ratio due to ranking ties, the number of eligible employees may exceed the number of vacancies for the at least one job availability multiplied by the contact success ratio but only to an extent required to resolve the ranking ties.
39. A system as claimed in claim 31, wherein the number of eligible employees to be engaged exceeds the number of vacancies due to ranking ties, an absolute timing for the speed of response to the message is used by the computer system as a tie-breaker.
40. A system as claimed in claim 35, wherein the employee ratings are according to at least one selected from the group consisting of: working attitude of employee, quality of work done by employee, skill level of employee, punctuality of employee, and overall conduct of employee; each carrying a choice of discrete scores that represent the employer's level of satisfaction.