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Individual Research Paper
An evaluation of
“Contractor Performance: How Good Are Contingent Workers at the Professional Level” (by Randall Jarmon, Albert S. Paulson, and Douglas Rebne. IEEE Transaction on engineering management, Feb. 1998, vol. 45, no. 1, pp. 11-19.)

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I. Concept Studied

There has long been a tendency on the part of employers to hire independent contractors for certain kinds of work. This commonly includes construction, but could also be any kind of short term, non-recurring service. For example, consultants are independent contractors, most attorneys and Certified Public Accountants are independent contractors.

The article I choose is "Contractor Performance: How Good Are Contingent Workers at the Professional Level?" by Randall Jarmon, Albert S. Paulson, and Douglas Rebne. It discusses the performance of a group of contractors who are actually temporary employees hired through an agency. The authors surveyed 96 managers in six high technology settings to try to determine whether they thought these workers were as effective as regular employees. The independent contractors concerned were doing jobs which normally required either a bachelor's or a master's degree but not a Ph.D.

The authors found that contractors' performed overall at least as well as employees with comparable education, background and skills. The data showed that there is no relationship between the contractors' performance and the amount of buffer which the organization maintains. Also, there was no effect from the amount of time the contractor spent in a client organization workshop.

II. Methodology

The authors of the article asked the managers of the 96 firms in question to answer a questionnaire about the contractors' performance in six dimensions:

- 1- Contractor work effort.
- 2- Contractor attendance.
- 3- The difficulty of work entrusted to contractors.
- 4- Contractor skill level.
- 5- Contractor commitment.
- 6- The overall expectation that the managers had regarding contractors' performance.

III. Contributions to the Literature

It seems that the method for analysis of the data was very strong. Although with a limited sample, they did a good job in setting up the analysis and finding important issues for this

group. This gives us a strong hint about a new concept in organizational work which is important and deserves further research. However, the limitations of the size of the sample and the number and kind of companies it was distributed to, limit our ability to generalize results across other types of companies which use contract employees. These results apply only to computer hardware and software companies who hire professionals with graduate degrees for work on specialized applications. It is unlikely that the results would be the same in less educated workers in different fields. I feel that a survey conducted across a broader sample of types of contractors and companies using contractors would be more significant.

IV. Comparisons to Other Research

While I found many articles which discussed how to determine whether one was an employee or a contractor and the penalties exacted by the Internal Revenue Service if one made an incorrect determination, I did not find many which tried to measure the effectiveness of a contractor as opposed to an employee. I also found two articles which did talk about contractor performance, but in an entirely different context. One discussed the performance of building contractors on a project [1], and one discussed performance and pay [2]. Also I found an article discussed that a major reason for hiring a person as an independent contractor is that the employer does not have to withhold and pay payroll taxes, unemployment insurance and benefits such as health insurance [3].

In terms of our original article, I think that every company and even government agencies consider whether contracting might be more effective or less costly on certain kinds of jobs. There do not seem to be any hard and fast rules which will help the individual manager decide which is best. The literature seemed lacking entirely or inconclusive at best. I think that further research is called for on this subject.

I think that the effectiveness of the contracting operation often depends on the content of the contract between the company and the agency [4]. Since in my country Saudi Airlines has many contractors I considered their performance level and found that it is generally very low even though they often have a high level of education and skill. The reason for this is that the manager at Saudi Air cannot give direct orders to the contractor but has to go through the contracting agency who then gives the orders to the person. In many cases the communication is poor and the person doesn't care whether he actually does a good job or not since the manager cannot fire him. I think that you have to offer the contractor some incentive which will encourage him to work effectively and efficiently or arrange for close supervision. This would be controlled by the contract between the agency and the company.

V. Strengths and Weaknesses of the Paper

This is a very limited research paper. Although they did a credible job of the questionnaires, there was not a large enough sample, the sample was not random, there was no control group, and there was not a broad enough range of samples.

In this case they simply gave questionnaires to as many managers as they could identify. They were anonymous, with instructions to mail back to the university. A total of 96 usable responses was received, which was a response rate of 73 percent. They used the simple

average of some scores to determine an index of overall perceived contractor performance and a 2 x 2 design with four cells to do a two-way analysis of variance (ANOVA) to determine what effects, if any, buffering and time in the workgroup had upon manager perceptions of overall contractor performance. The comparison of contractor and employee performance did not require the 2 x 2 matrix and relied instead on a test of the mean for the performance index.

I think that the sample should have been larger, although they received a high response rate, a sample of only 96 cases all from the same industry (computer software and hardware) seems too small to make generalizations. I think that they should have included other industries who use agency workers to contract and simply done a larger number of employers, several hundred would have been more appropriate, spread among six or eight industries at a minimum. The method used seems appropriate, although my knowledge of statistical research design is limited. To get a random sample they would have had to obtain large lists of employers of various types who use contractors and mail a questionnaire to every fifth or tenth name, depending on how many they wanted to try to sample. Their return probably would not have been as high, but they would have had more generalizable results.

VI. Conclusions

In this case, it seemed that contractors performed as well as regular employees and that these managers recommended increased use of contractors as a result. The authors felt that neither buffering from the mainstream organization nor inclusion in the employment "family" had any significant effect on the contractor's performance. Nevertheless, buffering may be necessary to protect the employer from coemployment liability.

Further, this is a very limited sample. I think that the conclusions drawn may be accurate to this industry because of the education and professional level of the contractors involved, but cannot be generalized across other kinds of industries who may hire a different kind of worker.

VII. About References

Since the paper is a survey, it doesn't have many references. However, they could have done a literature survey as part of the paper to support their conclusions or to compare to other methods and/or results. In general, the references are sufficient for what they did, but I think the paper would have been better had they added other information from previous research in this area.

VIII. Other Work

This was a very limited sample of types of employment that contractors might do. A broader range of studies including a variety of types of principals would show us a stronger trend toward performance measures compared to regular employees. I think that more research on employee production vs. contractor production is merited before any significant conclusions are drawn on the value of contractors in a variety of fields. I would be especially interested to know if contractors are more cost-effective in maintenance of biomedical

equipment than employees since this is my major.

IX. References

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- [3] "When is an independent contractor actually an employee?", *Workforce*, Sep 1997
- [4] Perry, Perry. "Avoid tax penalties for independent contractors", *Journal of Property Management*, Nov/Dec 1995.