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RE CONSIDERING SPENCE: SIGNALLING AND THE ROLE OF EDUCATION

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ABSTRACT

Education is costly, both to the individual because of the opportunity costs involved in terms of tuition, stationary etc. and the income forgone during the study period and to society because of subsidies given to education, the GNP foregone and the externalities if excessive or insufficient education is consumed. If the human capital theory is true i.e. higher earnings of more educated workers are the result of an increase in productivity, society will benefit from promoting education and all will be better off. But signalling model which consider education just a screening device for employers to identify workers who are naturally more productive through education certificates and education level attained, investing in education will be a gross misallocation of scarce resources. Thus, paper tries to identify the misallocation of resources (monetary or non monetary) taking place in the education sector after a brief overview of signalling and human capital theory. The paper further explores the adaptability of signalling theory in the modern Indian context.

KEYWORDS

Human capital theory, signalling, screening device, GNP.

1. INTRODUCTION

In a wide range of empirical studies, it has been observed that schooling and earnings are positively related with causation running from schooling to earnings. These issues are undisputable. Regarding to this issue, two fundamental schools of thought exists: the human capital theory and the signaling theory. If the human capital theory holds true than skills learned in school directly enhance job-related productivity, this in turn results in higher earnings. The screening hypothesis on the other hand posits that schooling is simply used as a screening device which allows employer to access the productivity levels of potential employees. Thus, paper overview briefly the two school fundamental school of thoughts and try to apply the signaling theory when both education and labour market are undergoing changes. The paper is divided into four sections. Section 1 introduces the theme of the paper. Section 2 gives the overview the Spence's work of signaling model. This section also explains the presence of multiple equilibria which all may not be Pareto optimal. Section 3 explains the over investment in Education that current education system of India is witnessing through the lens of the signaling model. The last section concludes the paper.

2. THE SIGNALING MODEL

Forty years ago in 1973, Michael Spence formulated a creative new way of looking at the role of education in relation to the labour market. The idea of signaling formalized in a neo classical framework of analysis had same astounding implication. The most extreme implication of the signaling hypothesis was that education could not add significantly to the productivity of workers. This stood opposite to the popular human capital view that education is a process of building up valuable human capital. Spence departed from the human capital approach by recognising employers as active agents whose beliefs influenced wages rather than taking one dimensional view of education as an investment from the point of view of prospective job seekers. The recognition of two groups of agents interacting in a market place which was replete asymmetry reflected the progress in economic theory brought about by Akerlof's revolutionary research which heralded a whole new dimension in the economic theorising, assisted by game theoretic modelling. This paper attempts to reconcile the signaling hypothesis with the view that education need not be intrinsically worthless through an exploration of Spence's original work, supplemented by the later research done by John Riley and Samuel Bowles. The paper proposes a simple change in the specification of Spence's original model which makes it possible to permit the formation of human capital during the process of education, while retaining the basic framework of the signaling model.

The basic model of job market signaling introduced by Spence proposes that employers view educational degrees as a signal of a workers' productivity. The labour market has informational asymmetry as the job seekers are aware of their productivity, but the employers only found out only after hiring. For e.g. a company director may want to fill managerial posts. During the process of selection, he cannot differentiate easily which applicant would be or won't be good manager. He can however, prescribe a basic minimum qualification for applicants such as a bachelor's degree to reduce the number of applicants have some basic ability because of which they were able to obtain the degree. Here, the degree is being used by the graduates to signal picked up in the education process. This is fairly well supported by the existence of degree programmes that are not targeted towards any specific occupation and are general in nature. Also, the prevalence of training or probationary period reaffirms the weak link between the skills attained in college and the demands of the job.

The model developed by Spence involves two groups of agents: employers and job seekers. The employers are unaware of the exact productivity of individual job seekers, but they assign conditional probabilities on the basis of past experiences in hiring. The conditioning factor used is the signal, i.e., the education level of the job seeker. The conditional probability is updated whenever it is failed to be updated by experience. In its simplest formulation, all job seekers are assumed to have one of two levels of productivity: high or low. Following the neoclassical market assumptions, the workers are paid their marginal products. Thus, high productivity workers are paid a high wage, and low productivity workers are paid a low wage. Job seekers on the other hand are aware of their productivity, and the high productivity workers would prefer to invest in a signal (education) to differentiate them from the low productivity workers. In the absence of such signaling, all workers earn a wage that is average of the marginal product of both high and low productivity workers. Thus, normally the high productivity workers will find it beneficial to invest in the signal and thereby raise their wages, till the cost of education remains below the increment in wages they can expect. To achieve this desirable outcome, Spence shows mathematically that the cost of attaining the signal must be inversely proportional to the productivity of the workers.

SELF CONFIRMING BELIEFS AND MULTIPLE EQUILLIBRIA

The model acknowledges the possibility of multiple equilibria, of which not all may be Pareto efficient. Equilibrium in the signaling model is the situation where the beliefs of the employers with regard to the conditional probability of the workers with a specific education level corresponding to a specific productivity level is confirmed or at least, no refuted. The belief has a self confirming mechanism as the wages offered by employer are used by the potential job seekers while deciding to invest in education.

The presence of multiple equilibria exhibits the possibility where everyone loses or in other situation some loses while other some gain. Systematic over investment in education can be a possibility which is an issue of concern. If the employer are risk averse and attach high wages only to very high qualification levels, then job seekers may proceed to invest more in education. The realised rate of return will decline as the cost curve of investing in education has a positive slope. This possibility can be easily seen in real situation as engineers pursuing post graduation degree in management, etc. Term "rat race" is given to such situation by Moen¹, according to him, investing in education, a worker improves his ranking, and this in turn increases his incentives to invest in human capital.

¹ Moen, Espen., 'Education, Ranking and Competition for Jobs', Journal of Labour Economics, 1999

Since ranking is a relative measure, however, a worker's investment in education now has a negative external effect on other workers, reducing their rankings. This reflects the kind of over-investment done to jump forward in the job queue.

Moen shows that, when this rat-race effect is taken into account, identical workers may have an incentive to diversify by choosing different levels of investment in education. Furthermore, not only does the ranking effect reduce the underinvestment due to rent sharing between workers and firms, it may actually dominate this positive external effect (which gives rise to the ranking effect in the first place) and lead to overinvestment in education for some parameter values. Bowles shows that in such kind of situation when all job seekers would be better off with a lower qualification as a signal, but the inability to ensure a cooperative outcome results in a sub optimal high cost equilibrium. This game theoretic extension by Bowles is of immense practical applicability as it shows why students cram for exam when only relative grades matter.

3. EXPLORING FURTHER: SIGNALING AND OVER INVESTMENT IN EDUCATION

Becker's (1964) contribution to the theory of human capital has been a path breaking one. He provided a theoretical and empirical analysis of human capital formation with special reference to education by invoking calculational rationality of human agents. The basic essence of Becker's theory suggests that earning are gross of the return on human capital, some people may earn more than others simply because they invest more in themselves. And since abler person tend to invest more than others, the distribution of earning could be very unequal and skewed, even though the ability were symmetrically and not too unequally distributed. Becker paid special attention to specific kind of human capital i.e. on the job training. Becker argues that learning, both on and off the job appears to have same effects as do education, training and other human capital investment.

The two models thus arrive at different conclusions concerning the efficiency of investments in education: individual choices are socially efficient under perfect competition according to the theory of human capital, but workers have a tendency to overeducate themselves under the signaling assumption. Over investment in education arises from the very basic assumption of the signaling theory that credentials only act as signals. It is possible that certain degrees or degrees from certain institutes do have a greater value as signal than others. In India for e.g. technical degrees like B-TECH, M-TECH etc or degrees from institutes like IIT's and IIM's. Such institutions will typically have sought after entrance exams and their graduates would command a relatively attractive salary. Employers recognise the degrees from such institutes as signal of the best workers available in the labour market. The greater the quality as evaluated by the signal, greater is the wage offered, and stricter will be entry barrier. While everyone may be able to invest in some education, the barrier at entry will exclude low productivity candidates from acquiring the highly prized signal. The low productivity individual would than tend to cluster in relatively low quality educational institutes which have lesser stringent screening criterion. A natural implication that this interplay with the quality of education is that a process of self selection arises: the high productivity aspirants are able to gain entry into the institutes offering the highest signals, and then they go on to sharpen their skills during the course of education thereby raising their productivity further. They are aided by the good quality of education at such institutes which supplement their human capital, and ultimately end up earning significantly higher wage than the others. The low productivity aspirants remain confined to lesser quality educational institutes and end up with the lower wages. The entry barrier presents a formidable challenge to these candidates. In order to meet these challenges low productivity person must undertake greater cost, such as enrolling in tuition or coaching institutes preparing students for various competitive exam like IAS, IES and the entrance exam of institutes like IIT, IIM or JNU. This mushrooming of private coaching institutes though facilitate the entry of low ability individuals into the premiere institutes, but simultaneously entail higher costs, which would ultimately act to reduce returns to investment in the signals.

The perceived quality of institutes that are viewed as effective signals of higher productivity is essentially a matter of reputation built by the institute over time. The reputation is beneficial for the institute as it can permit it command higher as its graduates earn a higher wage. In order to maintain this reputation of quality, the institute would ensure stringent screening at entry level to select the best among the candidates in terms of productivity. To cross the stringent entry barrier, candidates may undertake various investments: both monetary and that of time by investing in various remedial classes, or even specialised exam oriented coaching institutes. This entry level cost can be expected to vary inversely with the productivity of the candidate, thereby reaffirming the appropriateness of Spence's assumption. An outcome of the emergence of such coaching institutes is the cost of education may go up for all candidates, as any increment in exam cracking skills provided by such coaching institutes will induce all the students to invest in them in an attempt to increase their chances of selection in the best institutes, and in the process they simply end up raising the level of competition for themselves. This is in accordance with Bowles' result of a war of attrition like situation where a suboptimal outcome results due to failure of cooperation.

4. CONCLUSION

An exploration of both the theories in light of education it is not without the positive impact of schooling on earning together with screening approach work in the labour market. The signaling model is extremely applicable to modern day scenario in both the education and labour market. Signaling theory suggests that as there is presence of information asymmetry in the labour market in the sense that job seekers are aware of their productivity but employers find it out only after hiring. Thus employers hire workers on the basis of minimum required level of education to screen the applicants to ensure that applicant has some basic level of ability required for the job. The job offered may not be necessarily require the skills picked up in the education process but screening on the basis of education done because it reflects the basic ability that such candidate successfully complete the specific training required for the job. In other words, productivity is innate and the workers with the inherent ability to work better are the ones who flourish in school. Those who do well in school have the self-discipline, the ability to accept and follow orders and the team spirit necessary in the workplace. Hence such candidates are more adaptable and trainable for the workplace requirement. This is well supported in the present scenario as prevalence of training or probationary period reaffirms the weak link between the skill attained in the college and the demand of the job. So education acts as a signal to employers that the worker with the higher educational attainment is the better worker.

The signaling theory offers explanations to a wide range of phenomena from the mushrooming growth of coaching institutes to wage differentials of graduates from various disciplines or from different institutes. In order to remain ahead in que of highly rewarding job individuals signals their ability by over investing in education i.e. doing a diploma in computer or course like MBA after completing their degrees. As everyone is following the same suit the standard required for a given job is raised. Therefore even after having professional degrees individuals have to go for advanced courses. Thus, Spence signaling theory formulated forty years ago still explains the undergoing changes in the education and labour market in India.

REFERENCES

1. Akerlof, George A. (1970), "The market for" lemons": Quality uncertainty and the market mechanism", *The quarterly journal of economics*, pp. 488-500
2. Becker, Gary S. (1962). "Investment in human capital: A theoretical analysis." *The journal of political economy*, pp. 9-49.
3. Bedard, Kelly. (2001), "Human capital versus signaling models: university access and high school dropout", *Journal of Political Economy*, Vol.109, No. 4, pp. 749-775.
4. Bowles, S., (2009), "Microeconomics: Behavior, institutions, and evolution", Princeton University Press.
5. Chevalier, A., Harmon, C., Walker, I., & Zhu, Y. (2004), "Does Education Raise Productivity, or Just Reflect it?", *The Economic Journal*, vol. 114, No. 499, pp. 499-517.
6. Kjelland, J., (2008), "Economic Returns to Higher Education: Signaling V. Human Capital Theory; An Analysis of Competing Theories", *The Park Place Economist*, Vol. 16, No.1, pp. 70-77.
7. Layard, R. and Psacharopoulos G., (1974), "The screening hypothesis and the returns to education", *The Journal of Political Economy*, pp 985-998.
8. Moen, E. R., (1999), "Education, ranking, and competition for jobs", *Journal of Labor Economics*, Vol. 17, No. 4, pp. 694-723.
9. Riley, J. G., (2002), "Weak and Strong Signals", *The Scandinavian Journal of Economics*, Vol. 104, No. 2, pp. 213-236.
10. Schultz, T. W., (1961), "Investment in human capital", *The American economic review*, pp. 1-17.

11. Spence, M., (1973), "Job market signaling", The quarterly journal of Economics, pp. 355-374.
12. Spence, M., (1976), "Informational aspects of market structure: An introduction", The Quarterly Journal of Economics, pp. 591-597.
13. Wolpin, K., (1975), "Education and Screening", The American Economic Review, Vol. 67, No.5, pp. 949-958.



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