Research on the Impact of Social Networks on Employment

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Abstract: In order to have a better quality of life, people need to achieve a higher level of income. As work is one of the most important ways to earn income, people seek more and better employment opportunities in the labour market in order to earn a higher income. Social networks, with their homogeneous aggregation and weak ties, not only help employers to a certain extent to quickly find potential labour that is suitable for the job, but also play an important role in helping people to obtain better employment opportunities. This article will explore both parts. The paper will first analyse the characteristics of homogeneity and weak ties, and then, through case-specific interview statistics, explain how social networks promote employment and improve employment opportunities. This study shows that homophily benefits employment via shared similarity among employees, emphasizing strong social connections. Weak ties aid employment by giving job seekers with weaker relationships better opportunities, underlining the role of weaker connections in jobs.

Keywords: social network, employment, homophily, weak ties

1. Introduction

Social networks inherently possess the ability to disseminate information and connect individuals, making them well-suited for matching the needs of both supply and demand in various contexts, including labor markets. This is evident in the labor market where there exists a reciprocal demand for workers seeking employment and employers seeking to hire. As a result, it can be anticipated that social networks wield a substantial influence on the job market. With the amplification of this influence through various forms of modern social media in contemporary society, social networks are poised to play a significant role in the sources of employment. Over the past three years, the new crown epidemic has made the economies of various countries experience severe challenges. Being in the country with the most stringent anti-epidemic measures, Chinese companies have had to reduce their wage budgets through layoffs to tide them over, whilst it has become increasingly difficult for people to get good jobs in the job market [1].

However, while the epidemic has made it more difficult for people to actually socialise, many of the attributes that characterise their social networks have persisted. The inability of people to participate in live interviews has made it difficult for hirers to recruit the talent they need through online contacts. This has led to employee referrals becoming an important recruitment channel.

Secondly, people's incomes have been affected by the impact of the epidemic. In order to obtain higher earnings, people tend to change to new jobs with higher incomes. According to Mark

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Granovetterl, "contacts that provide access to information that are not readily available within one's close circle of friends" [2]. At this point, the weak connections in their social networks seem to provide greater help in providing them with better job opportunities.

Presently, research has predominantly focused on topics such as how social networks facilitate individual access to job opportunities or how employers identify suitable employees. However, there is relatively less systematic exploration of how social networks intricately impact employment. Hence, the objective of this study is to comprehensively elucidate the role of social networks in employment, encompassing the pathways and mechanisms through which they operate. The focus primarily involves reviewing existing research. The significance of this study lies in providing a systematic review and analysis of the impact of social networks on employment, addressing an area with relatively fewer studies and offering convenience for future researchers. This is precisely why our study is concentrated on investigating the effects of social networks on employment.

Upon reviewing the literature, it becomes evident that social networks exert influence on informal employment through two robust pathways: homophily and weak ties within social networks. Additionally, there are other potential influencing factors, such as individual traits, yet these will not be exhaustively explored within the scope of this paper. Instead, the primary focus will be on delving into these two prominent pathways—homophily and weak ties—in relation to their impact on informal employment.

2. Literature Review

After a difficult period of the epidemic, getting the economy and employment back to normal levels as soon as possible is an important task for sustainable development. According to the previous research, the digital economy has a significant promotion effect on non-agricultural employment, especially informal employment, and has also had a positive impact on entrepreneurs [3]. China Labour Institute consider that promoting economic recovery and expanding demand is the most fundamental way to solve the problem of employment, while using social networks to post jobs is an effective way to reduce the "information gap" in employment.

According to the previous literature, employment is broadly categorized into two parts: formal and informal employment. In formal employment, social networks, represented by recruitment platforms, play an important role. In China, 89.38% of university students have some understanding of online recruitment, have a rational attitude towards the objective problems in online recruitment, and are willing to use novel online recruitment techniques [4]. While formal employment holds a significant portion in the job market, this type of employment is primarily characterized by direct communication between job seekers and employers, hence involving limited engagement with social networks. Therefore, this study will not delve into the impact of social networks on formal employment. Instead, it will primarily focus on exploring the influence of social networks on informal employment, which is predominantly driven by interpersonal relationships.

On the other hand, labour economists have realized that many workers mainly find jobs through friends or relatives for long; personnel researchers also have a consensus that employee referrals are a strong way of searching job applicants. The contacts' social status is important in providing enough help to those who find jobs, and those who are able to handle formal and informal ways jointly gain the largest benefit [5]. In this employee referral approach, the network of people acts as a social network in which to help job seekers access more sources of information. The rate of contact with each other are higher among similar people than between people with not much similarity [6]. While Mark.S Granovetter argues that individuals' personal experiences are intimately linked to larger-scale aspects of social structure, far beyond the scope or control of particular individuals [2]. Weak ties, often condemned as a product of alienation, are seen here as indispensable for personal opportunity and integration into the community; strong ties, which breed local cohesion, lead to fragmentation of

the whole. He also claimed that contacts that provide access to information that are not readily available within one's close circle of friends [7].

This also seems to help people reach out to more people and harvest more useful information when applying weak ties to employment.

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3. Homophily in Employment

3.1. The Concept of Homophily

The notes in social networks are usually not randomly linked together. Since these networks represent people's social interactions. There are always some reasons for the connection. The reason for links to specific people is that they share a common property. For example, people tend to call other people of the same economic status [8].

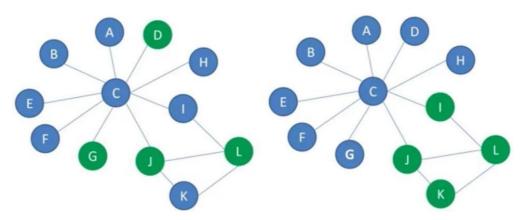


Figure 1: Two examples of network.

These are two network with blue and green notes. Which one is homophily? And Why? On the first network, the green notes are randomly through the network. There are only one edge between the green nodes. This network is not homophily. However, the green notes on the second network are connected to each other to a large extent, with 4 edges between green notes (in Figure 1). Homophily,

a concept that comes from sociology, usually be defined as having a great tendency to connect with others that being considered as similar to ourselves in different way [9]. They might live in the same cities, having the same favours or interests. There is higher connectedness in the network to the first. This network is homophily.

3.2. The Impact of Homophily on Social Networks

Figure 2 is a friendship network in a US high school. We assume that a dot in the picture represents a student, and the line connecting the dots represents the presence of friendship between the students. White dots represent students whose mother tongue is English, and black and white dots represent students whose mother tongue is not English.

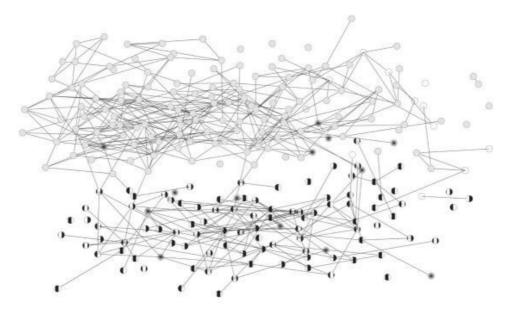


Figure 2: Social networks of native and non-native populations within schools.

As shown in the figure 2, the dots seem to be more clearly divided into two parts, with the upper half being the group of native English speakers and the lower half being the group of non-native English speakers. Language, as an important communication tool, successfully divides the population into two parts. The same language habit at this point is homophily. According to an important study, contact between similar people occurs at a higher rate than among dissimilar people [10]. The information in this picture seems to confirm this: most friendships between students occur within the same group, accounting for more than 90 per cent of all friendships; friendships across groups exist but are less frequent, accounting for only about 10 per cent of all friendships. In other words, students preferred to establish friendships with peers who shared the same language habits. This is because the same language habit avoids the language barrier in communication and enables them to communicate more smoothly.

3.3. The Impact of Homophily on Employment

Richard, the former chairman of Procter & Gamble, once said: "If you take the people of P&G away and leave the funds and equipment, then P&G will have nothing; if you take the funds and equipment away and leave the people, they will rebuild a P&G after 10 years". This is mainly because the former P&G employees are very outstanding. Based on homophily, they are more likely to have connections with people who are also very good at what they do. In their social network, people might use to study

together, which means they might have same education level. They might use to work together, they might not only have some same job skills, but also sharing the same value, such as hardworking and emphasizing on team spirit.

From the perspective of employers, if an employer is looking for a new employee who fits the company's values and skills, they will be more likely to ask older employees who have been with the company for a long time. This is because they are more likely to have developed work habits and values that are in line with the company's values, and they have a better idea of what kind of newcomers will be able to do the job. Under these conditions, employers are able to utilise homophily to fill vacancies better and faster. From the perspective of new employees, homogeneity helps them to broaden their job search channels. When certain Job seekers can use the way of both formal and informal to find jobs, they mainly have the largest benefit [5]. This way of getting jobs is called employee referrals and the homophily of the social circle can help people to have more ways to get jobs that are suitable for them.

4. Weak Ties in Employment

4.1. The Concept of Weak Ties

In the context of social networks and relationships, weak ties refer to people in an individual's social network who bridge different social groups or clusters. These connections typically involve acquaintances, colleagues, or casual acquaintances rather than close friends or family members. The concept of weak ties was introduced by sociologist Mark Granovetter. He considered that contacts that provide access to information that are not readily available within one's close circle of friends [2].

On the other hands, the theory of six degree of separation is also related to weak ties [11]. Milgram asked participants to send packages to a target person in another city by passing the package through their social contacts. The results showed that most packages reached the target in about six steps, which led to the term "six degrees of separation". The theory gained widespread attention and became a popular notion in popular culture and network science. While it's not a strict law and individual cases may vary, the theory illustrates the interconnectedness and small-world nature of human social networks. It highlights how our social connections can create surprisingly short paths between seemingly distant individuals across the globe.

4.2. The Impact of Weak Ties on Employment

Here comes a study that investigates how social networking influences new Latin immigrants to find jobs (in Table 1). A study done by Max et al make a research which concentrated on five communities of New York. The data contains the Employment of 41 immigrants who are current or former farm workers. And this table illustrates some sources of assistant in finding jobs [12].

Those immigrants who are well-educated, English-speaking, having legal status are able to find work on their own (45%), and in this case it only discusses immigrants who need referrals from others for job opportunities. So how can individuals move from agricultural to other types of employment? If this group of Latin immigrants relied on social connections which is kind of strong ties, family or friends in their original village, to find work, then they might have stayed on in agricultural work, which is low-paying.

But if they try to start from the perspective of weak ties, those who have already gone to the United States as immigrants to work first, just someone of the same race or more distant. For instance, they may get some better recommendations like some jobs far away in New York but earn much more than do some agricultural work in Mexico. They can capitalize on their weak ties who can play an intermediary role to help them get a better job. These immigrants can also earn better incomes in

more "open" labor markets where individuals more freely seek out the best employment options available to them.

Percent of English Percent of No Schooling Percent of N Speaking **Immigration** Assistance Source Mean Years Not at all Well **Documents** 9.3 29.9 41.0 None; found job themselves 45.0 6.3 7.7 48.2 1.7 Family; close friend 15.6 66.1 **Employer** 9.6 90.9 8.5 51.9 0.0

7.6

8.5

41.7

24.6

77.9

50.8

2.4

14.9

29.8

100.0

Table 1: Source of Assistance in employment [12].

5. Conclusion

All respondents

Other

In conclusion, homophily, which shows the trend for people to connect with those who share common attributes, plays a significant role in shaping social networks. The presence of homophily can be observed in network structures, as demonstrated by the clustering of similar nodes in the second network example. This phenomenon has implications for various aspects of society, such as language-based divisions in high school friendship networks and its influence on employment patterns. Employers leverage homophily to identify candidates aligned with their company's values, while job seekers benefit from expanded opportunities through diverse social connections. Furthermore, weak ties, connections between different social clusters, offer valuable pathways for information flow and opportunities. The theory of six degrees of separation underscores the surprising interconnectedness of human networks. Weak ties, exemplified by acquaintances and casual contacts, can have a profound impact on employment outcomes. Immigrants seeking jobs, for instance, can leverage weak ties to access a wider range of opportunities beyond their immediate social circles, leading to better employment prospects and potentially higher wages.

However, this study has several limitations. Firstly, it only discusses two main pathways, namely the roles of homophily and weak ties in the impact of social networks on employment, without comprehensively exploring other potential influencing factors. Secondly, this paper lacks empirical research, lacking actual experiments or data support; it relies solely on the analysis and interpretation of previous studies, possibly compromising its persuasiveness. Lastly, the study did not consider the actual economic context and neglected geographical and cultural differences, possibly making its theoretical foundation strong but practical applicability limited. Future research improvements could involve incorporating a broader range of factors and considerations for analysis, adopting empirical approaches such as data analysis and modelling, and integrating real economic and employment contexts for more comprehensive analysis, thus addressing the limitations of this article.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] He Zongyue and Song Xuguang (2020). The Mechanism and Enlightenment of Digital Economy Promoting Employment Reflections after the Epidemic Economist (05), 58-68.
- [2] Granovetter, M. S. (1973). The strength of weak ties. American journal of sociology, 78(6), 1360-1380.

Proceedings of the 2nd International Conference on Financial Technology and Business Analysis DOI: 10.54254/2754-1169/53/20230788

- [3] Li Biao&Zhou Yifei (2023). Su Hainan, a special researcher at the China Labor Association: Stabilizing the economy and increasing demand are the fundamental ways to promote employment. Attention should be paid to reducing the "information gap" among job seekers. Daily Economic News, 002
- [4] Hu Siyu and Song Xueqi (2023). The Current Situation and Optimization Path of Online Recruitment from the Perspective of the Internet Based on Data from 9 Universities in Jiangsu. Province Heilongjiang Science (07), 48-51
- [5] Xiong, A., Li, H., Westlund, H., & Pu, Y. (2017). Social networks, job satisfaction and job searching behavior in the Chinese labor market. China Economic Review, 43, 1-15.
- [6] McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. Annual review of sociology, 27(1), 415-444.
- [7] Wirth, L. (1938). Urbanism as a Way of Life. American journal of sociology, 44(1), 1-24.
- [8] Fixman, M., Berenstein, A., Brea, J., Minnoni, M., Travizano, M., & Sarraute, C. (2016). A Bayesian approach to income inference in a communication network. In 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM). IEEE. 579-582
- [9] Lawrence, B. S., & Shah, N. P. (2020). Homophily: Measures and meaning. Academy of Management Annals, 14(2), 513-597.
- [10] McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. Annual review of sociology, 27(1), 415-444.
- [11] Milgram, S. (1967). The small world problem. Psychology today, 2(1), 60-67.
- [12] Pfeffer, M. J., & Parra, P. A. (2009). Strong ties, weak ties, and human capital: Latino immigrant employment outside the enclave. Rural sociology, 74(2), 241-269.