

The Influence of Human Capital Elements on Performance: Evidence from West Java SMEs

Eny Lestari Widarni

Doctoral Program of Management, Merdeka Malang University, Jl. Subali X 13K No. 4 Perumahan SawoJajar
2 Pakis Malang

Email: enistiekn7@yahoo.com

Abstract

The purpose of this paper is to establish the Influence of Human Capital Elements on Performance: Evidence from West Java SMEs. A valid research instrument was utilized to conduct a survey on 250 SME and 897 respondents that are representative of 397 SMEs and 1,087 respondents. Correlation and regression analysis were conducted to ascertain the validity of the hypotheses. The result was established that human capital elements (employee educational level, experience and motivation) are associated with SME`s performance. Furthermore, human capital as a whole accounts for 55.9 percent of the variation in performance Indonesia`s SMEs. Finally, human capital was studied and by the virtual of the results, there are other factors that contribute to SME`s performance that were not part of this study.

Keywords: human capital, education, experience, motivation, performance

A. Introduction

Joining Indonesia in free trade agreement China - ASEAN Free Trade Agreement (CAFTA) in 2012 made further decline of the industry Indonesian garment due to differences in competitiveness are quite high. Data of CMEA - economy (2011) showed that prior to the enactment of CAFTA 2012, the trade deficit with China garment Indonesia has been widening from year to year, especially after the enactment CAFTA. Implementation of the ASEAN Economic Community (AEC) at the end of 2015, also forced the garment industry to immediately conduct improvement if it is to survive and or control of the Asean market. If the garment industry was not able to compete at the level of ASEAN, the AEC will be a disaster (loss of opportunities). If you are not able to compete, Indonesia as the largest country in ASEAN with a population of \pm 250 million potentially flooded with products of other countries in ASEAN or even from outside ASEAN. Conversely, if the garment industry capable of competing in the AEC market consisting of 600 million inhabitants, the AEC will bring blessings and benefits (land of opportunities) which are significant for the national economy (Ministry of Industry, 2013)

SME is a line of business that relies heavily on human capital. In developing the necessary strategies and programs to "first class " so that SMEs are still low productivity can be high and that it is limited and can be expanded local market oriented towards regional and export markets. Therefore, in order to increase the productivity of SMEs, government and private sector should jointly invest in education , training , and in efforts to bring new entrepreneurs . However, this great potential can only be guaranteed when the SME have within them appropriate human capital.

Apparel industry (garment) as SME is the downstream industry Textile Products (TPT) are relatively the least in need of capital but labor intensive. According to the Socio-Economic Data BPS (2011), the garment industry provides the largest contribution to total industrial exports in Indonesia compared to other textile group ie 5.45 %. This shows that approximately 60% of Indonesian textile exports come from the garment products.

Accordingly, much of the research about human capital have been carried out in the developed countries especially in Scandinavian countries (Sharabati et al.,2010), Asia, USA and North Africa; that it is expected to provide important information other than performance. However, none of the prior studies have investigated the contribution of different Human capital components in Less Developed Countries especially in the manufacturing sector. It is therefore within this framework that we consider the influence of human capital as an important facilitator of performance in manufacturing firms which has never been exhausted in developing countries. The aim of this study thus is to contribute to the development of a strategy and mix of the firm`s human capital that incorporates the impact of both employee competences and their motivation and the extent to which human capital contributes to performance of manufacturing firms in less developed countries especially Indonesia.

B. Literature Review

Human capital

According to Sumbramaniam & Youndt (2005 : 454), human capital is defined as the knowledge, skills, and abilities attached to and used by individuals . As according sanchez (2000 : 316) Human capital which is simply defined as the knowledge brought by workers when they leave the company.

However, the application of the theory increases learning efforts by employees and requires a firm to recruit highly qualified employees, train them yet at one point they will live because the firm does not own them (Bronchi, 2003, Castronova,2002; Crepaz and Moser, 2004).

The way organizations manage human capital determines the value of the asset. Enhanced value by aligning force of human capital with organizational strategy, causing effects human capital in organizations. Edvinsson and Malone in Uliana , Macey & Grant (2005 : 169) states human capital as knowledge , expertise of individual abilities , and experience of the company's employees and manager. Meanwhile, human capital or Employee capital by Zelenler et.al (2008 : 35) is defined as the aggregate of employee knowledge, skills, capabilities , experience, attitude, freedom, creativity and commitment inherent in employees.

According to Nelson (2011 : 36) human capital is learning , abilities , skills , and knowledge of individuals can be used in the labor market as a form of currency (or capital) in exchange for wages or income. Human capital is often regarded as the main predictor of a person's employment and wages. Human capital represents the individual stock of an organization as represented by its employee's competences (Bontis et al., 2002, Roos et al 1997). Competence includes skills and education at workplace. It can further be looked at as the individual abilities, knowledge, know-how, talent, and experience of both employees and managers of a firm (Edvinsson and Malone, 1999). According to Kamukama, (2010) and Bontis, (1998) this capital is the most important asset a company owns since it is a source that creates competitive advantage though it is more risky and does not belong to the organization per se but to each individual that constitutes the organization.

According to Lafuente and Rabetino (2008), Human capital is comprised of individual attributes as formal education previous labour experience, individual well being at the place and even beyond, and the presence of partners who might provide additional expertise. This type of capital is considered unique since knowledge cannot be taken away from the individual as tangible assets and financial capital can. It can therefore be observed that the employee's knowledge brought about by their educational level, their abilities, and level of motivation provided by their employers constitutes a key determinant factor towards the success of any business (Honig, 2001 and Pena, 2004). Therefore, for organization to get real value from their workforce, human capital is central with its key elements of employee education level, experience and motivation.

Human Capital and Financial Performance

Human Capital has been sited to be influential in reducing organizational costs in many ways. The educational level that an employee comes with, experience acquired while at the place of work coupled with the firms motivational level may result in increased output and competitiveness. (Young & Snell, 2004). human capital has equally been cited to be instrumental in enhancing customer benefits by helping to increase quality, reliability, and flexibility, creating value for the customers, through production and service delivery process innovations.

The study of Bontis, Keow and Richardson (2000) show the positive significant relationship between human capital and firm performance for both service and non service industries. Carmeli and Tishler (2004) and Riahi-Belkaoui (2003) proved the positive association between human capital and firm future performance. On the other hand, the research suggests that the relationship might be industry and country specific. Carmeli and Tishler (2004) go on further on the argument of the importance of interactions between human capital elements and they found out that those relations enhance organizational performance.

In general the studies prove the main contention of the resource based view positive relationship between intangibles and firm performance (Bontis, Keow and Richardson, 2000, Riahi-Belkaoui, 2003, Li and Wu, 2004, Chen, Cheng and Hwang, 2005). Different dimensions of firm current and future performance are considered, like survival and profitability (Delios and Beamish, 2001) or firm's market value and financial performance (Chen, Cheng and Hwang, 2005). Ranzijn and Verboom (2004), understood firm performance to be the bottom line, which means profit. Thus, performance of a company depending on the users can be judged from the profit generating potential of an organization or the market share and or asset base. In order to communicate performance, financial analysts use a number of techniques to establish a firm's performance. For this study, such ratios as net profit margin (NPM), return on capital employed (ROCE) and earnings per share will be considered. This is in agreement with Spivey and McMillan (2002) who stated one way to know the organization that is doing well is through using the profitability ratios.

Employee educational level

According to Ruzevicius (2006), the quality of knowledge and the level of education one has gone through,

shapes him and overturns organizational performance if well utilized and passed on. This sharing of knowledge should become one of the essential values within an organization. According to Cooper et al., (1994); Gimeno et al., (1997), it is widely recognized that formal education positively impacts on managerial decisions that increases business growth opportunities. This indicates that more educated employees have the necessary skills, discipline, motivation, information and self-confidence to attain higher growth rates in their work place; hence, they are more likely to perceive and exploit business opportunities to better performance (Cooper et al., 1994; Ucbasaran et al., 2008).

Secondary, education provides knowledge that may help overcome financial constraints (Evans and Leighton, 1989) and foster business growth (Honjo, 2004). It therefore of no doubt that successful companies tend to be those that continually put emphasize on skills and knowledge of their employees, rather than on assets, such as plants or machinery (Maheran et al., 2009). Mavridis (2004) further observed that highly-skilled and qualified individuals are needed to facilitate the delivery of high value-added products and services as well as the competences to build consumers' confidence and trust. Maheran et al. (2009) crowned it all by stating that in an increasingly complex and more liberal environment, the competitiveness of manufacturing firms will depend critically on the quality of employee's qualification.

Employee experience

Switzer and Huang (2007) argue that on job experience with the organization and overall industrial experience per se is one of the major human capital characteristics that lead to organizational performance. Studies by Lafuente and Rabetino (2011) describe human capital comprising of labor experience and skills accumulated by individuals contributing to business performance. This implies that experience and skills of individual employees in the organization provide an organization with a mix of capabilities that makes it an organization off choice.

Previous studies by Schutjens and Wever (2000) and Bosma et al. (2004) found out the relevance of experience as an integral component of human capital contributing to the firm's growth. This therefore conforms to the notion that experience and skills is a positive predictor of firm performance. In Indonesia, organizations continue to focus and insist on experience and skills as a key to acquire talented work force and a pre-requisite to getting a job, yet experience is not taught in institutions but nurtured among employees within the organization. This has created mixed feeling in relation to the quality of education provided by institutions of higher learning where they provide more theoretical knowledge than practical skills preferred by employers.

Employee motivation

According to Kamukama (2010), employees represent the most valuable and important asset of the organization that has to be harnessed and managed with care and maintaining a motivated and committed workforce is essential to the performance of any organization.

McCoy (2012) states that motivation is the underlying reason a person has for acting or behaving in a particular way. In business, the typical default mechanism that management uses to "motivate" employees (to do what they want them to do) is to incentivize the goal by saying "if you do I will give you....". If the incentive is compelling enough to the employee, then the system works resulting in the employee reaping the incentive and management achieves its goal.

As Stanford Professor Jeffrey Pfeffer discusses in his recent book about evidence-based management, pay for performance is a complex issue (Pfeffer and Sutton, 2006). Financial incentives have a motivational, informational and a selection effect, all are very powerful if designed correctly, but become a risky approach if not based on real data on performance. This was also a finding from a recent research effort investigating the linkage of pay-for-performance and financial performance (Berggren and Fitz-Enz, 2006).

Kamukama (2010), in his PhD thesis advanced that most people in the developed world today take food and shelter for granted, and that the job has become something more than simply a means to put food on the table. Many people in developed countries do not view their jobs solely as a means to support their basic needs and lifestyles, but are looking at work as a means to fulfill needs that are higher up in the Maslow Hierarchy of Needs pyramid.

Based on his field experience, employees no longer look at salary and allowances as the only motivation, but look at other incentives such as training and staff development at the place of work. In reference to Berggren and Bernshsteyn, (2007) work, employees' attitudes towards work and what motivates them appear to be dramatically different than some of their older colleagues. Based on the inadequacy on the link between human capital and performance, calls for testing the following hypothesis

Based on explanations above, so research hypothesis as follow:

H1: Employees education level positively influences performance of manufacturing firms

H2: Level of Employees experience positively influences performance of manufacturing firms

H3: Employee's motivation level positively influences performance of manufacturing firms

H4: Human capital positively influences performance of manufacturing firms in Indonesia
From the formulation of hypothesis, research model can be form as follow:

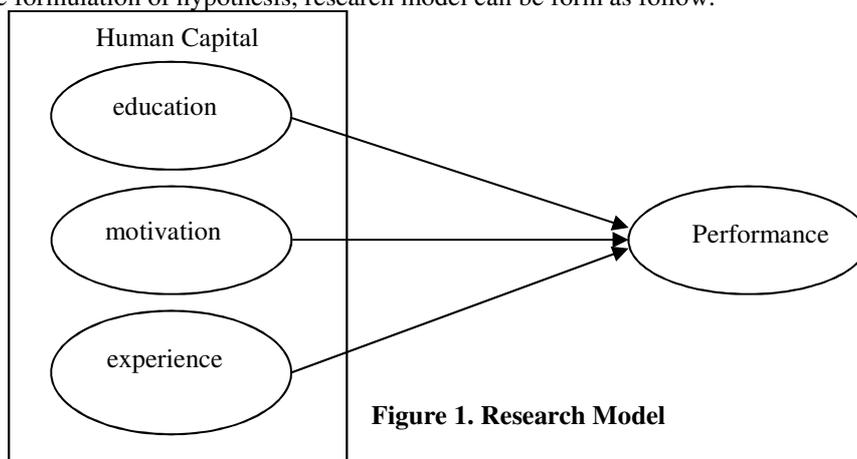


Figure 1. Research Model

C. Methodology

Design, population and sample

The study used a cross-sectional, qualitative and quantitative research designs to address the stated hypotheses. The study population included SMEs in West Java Indonesia. The sample size of SMEs with 50 respondents was generated using pilot study. By opting for this methodological approach, perfect information symmetry is ensured as such respondents are perceived to know how the employees are handled and the financial gains a firm gates out of the employees hard work.

The study variables were operationalized based on previous studies. In addition, a five-point Likert scale developed by Rensis (1930) was adopted for all item scales ranging from 1- strongly disagree to 5 - strongly agree. Human capital was measured on the basis of employee educational level, employee experience and employee level of motivation in line with the Intangible Asset Monitor (IAM) developed by Sveiby (2001), late modified by Petty and Guthrie (2004). The main focus was on employee know-how, education, qualifications, work-related knowledge and work-related competence. Performance of manufacturing companies was measured using the works of different scholars such as Ledgerwood (2011), Glautier M W E & Underdown B (2001) together with the Performance Monitoring Tool (2006/2008). Financial performance ratios such as net profit ratio (NPM) and return on capital employed ratio (ROCE) were used for each SME.

The questionnaire was validated through expert interviews and by a panel of expert practitioners and was then physically delivered to the selected respondents at their work premises on appointment. A survey was adopted as the most appropriate method of data collection and previous research supports the reliability and validity of the self-report measures (Lechner et al., (2006). This approach consists of a selection of key information providers by virtue of their position, knowledge and information available (McEvily and Marcus, 2005).

D. Results and Discussion

Result

The mean score of the element of human capital (employee educational level, employee experience and level of motivation) and performance were established as 4.2, 3.9, 3.8 and 4.1 and the standard deviation of 0.56, 0.67, 0.74 and 0.76 respectively and the CVI were established as 0.87, for the human capital and 0.77 for performance. Given that the standard deviations are small compared to mean values, it is true that the computed means highly represent the observed data. In effect, the calculated averages are a good replica of reality (Field, 2006 & Saunders et al., 2007).

Principal component analysis for human capital was performed (Field 2006) and yielded three factors namely employee education level accounted for 41.3 percent, employee motivation accounted for 32.8 percent and employee experience accounted for 25.9 percent) and performance of manufacturing firms was explained by 66.6 percent

The findings show a significant and positive correlation between employee education level and firm performance ($r=0.356^{**}$, $p<.01$; Sig.000), employee level of motivation and firm performance ($r=0.293^{*}$, $p<.05$; Sig.001), employee level of experience and firm performance ($r=0.257^{*}$, $p<.05$; Sig.001). Thus our results support H1, H2 and H3. Human capital (H4) as a whole is associated with firm performance ($r=0.714^{**}$, $p<.01$; Sig.000). This implies that when shareholders invest more firm funds in recruiting employees with the required qualification and experience and then motivates them appropriately commensurate to their work efforts, the level of

performance of manufacturing firm's increases in return. The research results are in line with those of Barney, (1991), Kamukama (2010) and strategic HRM by Huselid, et al., (2007), who argued that the organization-specific human capital is of strategic importance to organizational performance. Thus, the collaboration of HUMAN CAPITAL (Fitz-end 2006) results in the improvement and establishment of efficient and productive systems and processes, and/or the innovation of new products and services.

A regression analysis was performed in order to establish the relationship human capital has towards the overall performance of SME in Indonesia. The results show that human capital elements (education level, experience and motivation) explain 55.9 percent of the variance in performance of SME's in Indonesia.

Discussion

a) Employee educational level and performance of manufacturing firm

The findings revealed that Employee educational level improves performance; the key attribute of employee education is that it is measured by the qualification at various levels an employee has entered the company with. The results imply that firms which invest capital to strengthen their recruitment process by way of advertising available jobs, short listing candidates based on job requirement and qualification, and then orientation, job description and job specification properly laid down to employees; benefit the organizations in one way or the other.

These results are in agreement with the findings made by Huselid et al., (2005), who found out that employees represent the most valuable and most costly variable in the execution of organizational performance. He concluded that they must have the right qualification in order to be fit on the right jobs. Otherwise it would be disaster to recruit a wrong person amidst the cost involved, and he or she does improper things. Therefore, it is important for manufacturing firms in Indonesia to recruit employees who have the right qualification for the job.

b) Motivation and performance of manufacturing firms

The study revealed that there exist a significant and positive relationship between employee motivation and firm performance. Therefore, boosting an employee by a way of providing him/her with recognition awards, availing employees' overtime and flexible work schedule, staff development and incentive pay between the lowest and high performing employees are deemed to improve organizations performance but in the long run are a waste of organizational resources because they are seen as demotivators since they form a basis for further demands. There therefore a need for policy on incentives to streamline rewards. In addition, financial rewards are associated with costs to an organization and if not properly regulated; can significantly reduce the profits of an organization there by affecting organizational performance.

Our findings are in agreement with those of earlier scholars such as Berggren and Fitz-Enz, (2006) and Huselid et al., (2005), who argued that maintaining well motivated employees are essential to the success of every organization and that the lack of understanding by those in authority on how to motivate their employees will hurt the organization. Successful organizations are the ones that can find the potential on an individual basis and act upon that potential to fully exploit it.

c) Employee experience and performance of manufacturing firms

Results from the study revealed that there exists a significant and positive relationship between employee experience and performance. This goes hand in hand with the education level and the number of years has served either in other organizations or within the same company itself or in addition to other trainings attained. The results imply that firms which invest capital to strengthen their employees level of experience through training and by use of qualified persons, use of several training methods, training based on employee training needs and needs requirement of employees leads to significant performance returns and enables the organization to achieve its goals because an experienced and qualified employee can turn the company round.

The study findings from the correlation established a significant relationship between human capital and firm performance ($r=0.714^{**}$; $p\text{-value}<0.01$). This implied that when firms invest capital in strengthening their recruitment process to tap qualified employees based on their level of education and experience and then motivates them appropriately, performance increases.

Our results are in line with the findings of the resource-based view (RBV) of the firm developed by Barney, (1991), and strategic HRM by Huselid, et al., (2007), who argued that the organization-specific human capital is of strategic importance to organizational performance. Thus, the collaboration of human capital (Fitz-end 2006) results in the improvement and establishment of efficient and productive systems and processes, and/or the innovation of new products and services.

The results are further supported by the findings of Olaniyan and Okenakinde (2008), who asserted that human capital is a key factor in the performance of an organization. He further argued that it comes up as a result of the process that must be enshrined in the company human resource policy of ensuring that an organization has the

right people, who are rightly placed, remunerated and ultimately managing them within, such that they do not resign or exit.

E. Summary and Conclusion

As a result of the discussion, the study confirms that, human capital elements (education level, motivation and experience) are significant predictors of performance in the SME's of Indonesia. Of the human capital elements, employee education level has the highest significance and therefore is more important in influencing performance of SME's. Thus, a combination of all the human capital elements predicts 55.9 percent of the variation in performance of SME's

References

- Barney, J. (1991); Firm resources and sustainable competitive advantage; *Journal of Management*, Vol. 17, pp 771-792.
- Bontis, N., Keow, W. and Richardson, S. (2000), "Intellectual capital and business performance in Malaysian industries", *Journal of Intellectual Capital*, Vol. 1 No. 1, pp. 85-100.
- Bosma, N., van Praag, M., Thurik, R. and de Wit, G. (2004), "The value of human and social capital investments for the business performance of start-ups", *Small Business Economics*, Vol. 23 No. 3, pp. 227-36.
- Chen, M., Cheng, S., Hwang, Y. (2005), "An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance", *Journal of intellectual capital*. 6(2):159-176.
- Cooper, A., Gimeno-Gascon, F.J. and Woo, C. (1994), "Initial human and financial capital as predictors of new venture performance", *Journal of Business Venturing*, Vol. 9 No. 5, pp. 371-96.
- Edwards, W. (2004). Interpreting financial performance measures. *Journal of business finance & accounting* pp 23-56.
- Edvinsson, L. and Malone, M. (1999), *Le Capital Immatériel de l'Entreprise: identification, mesure, management* (Immaterial Capital of the Enterprise: Identification, Measure, Management) Éditions Maxima, Paris.
- European Commission (2007), *Green Paper: Entrepreneurship in Europe*, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM (03) 27, available at: http://ec.europa.eu/enterprise/entrepreneurship/green_paper/17022003-1
- Field, A. (2006), *Discovering Statistics Using SPSS*, 2nd ed., Sage, London.
- Honig, B. (2001), "Human capital and structural upheaval: a study of manufacturing firms in the West Bank", *Journal of Business Venturing*, Vol. 16 No. 6, pp. 575-94.
- Honjo, Y. (2004), "Growth of new start-up firms: evidence from the Japanese manufacturing industry", *Applied Economics*, Vol. 36 No. 4, pp. 343-55.
- Hwang, W. and Chang, Ch. (2005), "Intellectual capital and performance in casual models. Evidence from information technology industry in Taiwan", *Journal of intellectual capital*. 6(2): 222-236.
- Kamukama N, Ahiauzu A. and Ntayi J. M (2010), "Intellectual capital and performance: testing interaction effects" *Journal of Intellectual Capital* Vol. 11 No. 4, 2010 pp. 554-57,
- Kamukama N. (2011), "intellectual capital elements and financial performance in microfinance institutions in Indonesia" PhD thesis, Makerere University, Kampala. .
- Lafuente E. and Rabetino R. (2011), "Human capital and growth: Romanian small firms" *Journal of Small Business and Enterprise Development* Vol. 18 No. 1, 2011 pp.74-96.
- Maheran, N.M., Khairu, A.I. (2009), "Intellectual capital efficiency and firm's performance: study of Malaysian financial sectors", *International Journal of Economics and Finance*, Vol. 1 No.2, pp.206-12.
- Macmillan, J.F (2002); Value creation and the entrepreneurial business: Available online: <http://www.business.clemson.edu/spiro/images/pdf/WP02-03.pdf> 1506.2004
- McGregor, J., Tweed, D. & Pech, R. (2004). Human capital in the new economy: Devil's bargain? *Journal of Intellectual Capital*, 5(1), 153-64.
- Ngoma, M. (2009), "Internationalization of services in less developed countries", PhD thesis, Makerere University, Kampala.
- Ntoumanis, N. (2001), "A self determination approach to the understanding of motivation in physical education", *British Journal of Educational Psychology*, Vol. 4 No. 2, pp. 234-45.
- Riahi-Belkaoui, A. (2003), "Intellectual capital and firm performance of US multinational firms – a study of the resource-based and stakeholder views", *Journal of Intellectual Capital*, Vol. 4 No. 2, pp. 215-26.
- Roos, J., Roos, G., Dragonetti, N. and Edvinsson, L. (1997), *Intellectual Capital: Navigating in the New Business Landscape*, New York University Press, New York, NY.
- Schutjens, V. and Wever, E. (2000), "Determinants of new firm success", *Papers in Regional Science*, Vol. 79 No. 2, pp. 135-59.
- Ucbasaran, D., Westhead, P. and Wright, M. (2008), "Opportunity identification and pursuit: does an entrepreneur's human capital matter?", *Small Business Economics*, Vol. 30 No. 2, pp. 153-73.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

