

Analysis of Vocational Graduates Absorption in the Digital Printing Industry through Alumni Tracking: A Case Study of Multimedia Students at VHS 1 Trenggalek, Indonesia

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INFO ARTIKEL	ABSTRAK
<p>Riwayat Artikel:</p> <p>Diterima: 29-10-2021 Disetujui: 10-12-2021</p> <hr/> <p>Kata kunci:</p> <p>Vocational graduates Digital printing industry Multimedia students</p>	<p>Abstract: This study aims to analyze the absorption of the workforce of SMK graduates from the multimedia expertise program who work in digital printing either as employees or opening their own businesses. This research was conducted in the city of Trenggalek with the target of SMK Negeri 1 Trenggalek. The technique of collecting data is with documentation techniques from documents and data from the school's Special Employment Exchange (BKK) report. Qualitative descriptive analysis technique, where qualitative data is presented in the form of descriptive descriptions, tables, charts or pictures to facilitate the presentation of information. The results showed that multimedia graduates from 2016/2019 to 2018/2019 who were absorbed in the digital printing industry continued to increase. The decline in job absorption in the digital printing industry experienced a decline in graduates in 2019/2020 possibly due to the impact of Covid19.</p> <p>Abstrak: Penelitian ini bertujuan untuk menganalisis ketersediaan tenaga kerja lulusan SMK program keahlian multimedia yang bekerja pada digital printing baik sebagai karyawan atau membuka bisnis sendiri. Penelitian ini dilakukan di kota Trenggalek dengan sasaran SMK Negeri 1 Trenggalek. Teknik pengumpulan data dengan teknik dokumentasi dari dokumen dan data laporan Bursa Khusus Kerja (BKK) sekolah. Teknik analisis deskriptif kualitatif, dimana data yang bersifat kualitatif disajikan dalam bentuk uraian deskriptif, tabel, bagan atau gambar untuk mempermudah penyajian informasi. Hasil penelitian menunjukkan lulusan multimedia tahun 2016/2019 sampai 2018/2019 yang terserap kerja di industri digital printing terus mengalami peningkatan. Penurunan ketersediaan kerja pada industri digital printing mengalami penurunan pada lulusan tahun 2019/2020 kemungkinan karena dampak Covid19.</p>
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INTRODUCTION

The development of technology in the digital era is one of the important things because it affects various other businesses, technology can make developments that continue to develop in various types and sectors, especially in the economic field.(Maria & Widayati, 2020). Including digital globalization in the graphic design

sector. In the digital era, graphic design plays an important role in various business fields, many business fields take advantage of the expertise of graphic designers (Putra et al., 2021). This can be seen from the many fields of business that utilize the services of graphic designer expertise. Graphic design is required to continue to innovate and develop itself in making products that attract public interest through promotions.

Digital printing is now becoming a trend, especially for the importance of company promotion (Primary, 2020). Prospective graphic designers who work in digital businesses must be able and able to enter the wider community environment, in order to find out how much influence the world of work has with the work they are engaged in. Digital printing business products include a variety of services ranging from printing business cards, invitations, pamphlets, banners, banners, notes, brochures, certificates, stamps, name tags, id cards, logos, billboards, photo printing and so on related to printing and advertising. Digital printing is now becoming a trend, especially for company promotion purposes (Yuniarti & Mauliana, 2012)

Digital techniques are increasingly being used because the results are very varied and can print more beautifully according to what appears on the computer screen (Yuniarti & Mauliana, 2012) The potential of the digital printing business is increasing along with the increasing demand for digital printing technology in one's public and private activities, so the digital printing business has a very prospective market share. The demand for digital printing products is increasing along with the number of new digital printing companies (Primary, 2020). The printing industry is still growing in the digital era, even in 2020, the growth of the printing and printing industry will reach USD 47.2 billion worldwide (Margomo et al., 2020). Therefore, business opportunities in this business can be said to be quite promising. Including in the Trenggalek district. More and more business people are opening digital printing businesses in Trenggalek district.

One of the efforts to develop Vocational High Schools is through evaluating the suitability of the learning material for the expertise program with the needs of the industry (Maulana & Winanti, 2016) The development of technology and the rapidly changing graphics market has forced industry players to keep abreast of developments and innovations. With the development of the printing business, there is also a need for workers who are ready to work in the company (Official, Setya. Kareviati, 2020). Currently, workers with graphic design and multimedia skills have considerable opportunities in the industry engaged in digital printing services. This is a challenge, especially for Vocational High Schools (SMK) educational institutions that prepare graduates to be ready to work, including in the printing industry. SMK Negeri 1 Trenggalek answers the challenges of the needs of the industrial and work world by preparing graduates who are ready to work in the digital printing field through a multimedia expertise program.

Labor absorption is one of the supporting factors for economic development carried out by developing countries which has the aim of, among other things, to create economic development whose results are evenly distributed (Punarbawa, 2016). Vocational schools are institutions that produce skilled workers in certain fields with good performance values, so they are expected to be easy to absorb into the world of work (Syamsuddin & Makassar, 2019). The more graduates who succeed in the world of work, the economic development will increase. The career success of graduates is the most reliable indicator of the increasingly rapid economic development of a nation, which is generally stimulated by the ability of graduates to compete in the global market and their work competencies that are relevant to the labor market (Vilmari, Helakorpi, & Frimodt, 2009) in (Nurhadi & Lyau, 2017).

Absorption of labor in a company or industry will increase if the demand for goods / services increases. This means that the increasing number of requests will encourage an increase in the number of outputs produced and ultimately increase the demand for labor. This corresponds to Lilyawati & Budhi, (2016) that if the output produced is large, where the demand for these goods will increase, this will encourage an increase in the amount of output produced and ultimately increase the demand for labor. The higher the working capital of a company, the level of use of production factors will increase (use of machines, labor and inputs or raw materials).

The number of digital printing businesses affects the absorption of labor in the digital printing industry. So that when the number of companies/businesses in the digital printing industry increases, it will be followed by the absorption of workers in the digital printing industry. According to research Safatillah, (2014) that the number of companies in the electronics industry has a positive and significant effect on the employment of the electronics industry. The absorption of labor referred to here is the number or number of graduates of SMK Negeri 1 Trenggalek majoring in Multimedia who work or are employed in the digital printing industry, with units of people.

The art of graphic design encompasses cognitive abilities and skills including typography, image processing, and page layout. Graphic designers arrange the appearance of letters and compositional spaces to create an effective and communicative design (Rais et al., 2017). Graphic design has been influenced by technological advances (Ibrahim et al., 2021). As a subject, graphic design now covers disciplines such as motion graphics, environmental commodities, and new media, while as a profession it encompasses the film industry, and all manner of communication and visual design, both online and offline, to create useful and enjoyable work artifacts (Appiah & Cronjé, 2014). In graphic design programs, courses such as website design, animation and multimedia are offered where understanding and understanding of concepts as well as skills development is required (Ryan & Conover, 2004) (Ibrahim et al., 2021).

The term printing (screen printing) has the connotation of printing activities that are carried out manually (Novaliendry, 2019). However, along with the development of information technology, which offers a lot of convenience in expressing creative ideas for graphic designers, digital printing process technology with the help of computer devices is an alternative choice for printing businesses and printing consumers. Sophisticated equipment, excellent product quality, and innovation in terms of marketing/marketing are factors that influence the sustainability of the current printing business/business (Novaliendry, 2019).

Digital printing has many advantages, namely the work process is carried out quickly, there is no need for a minimum limit for each time of production and the quality produced is better. In addition, the digital printing business is able to answer all the community's needs for printing, for example to make banners, banners, brochures and others (Kuswanto, Dedy and Ekawati, 2014).

Offset ink based digital machines are produced to replace offset machines. The advantage of this machine is its wide media flexibility, from paper to plastic and the results are very similar to offset machines. Digital printing can be further grouped into product service groups which include (Official, Setya. Kareviati, 2020); digital printing of T-shirts, mugs and ID cards; Digital printing Indoor/Outdoor; digital printing (Digital Press).

Research that discusses the idea of a shared technology roadmap between printing and lithographic design from several perspectives. He researched how printing and design influenced each other. He concluded that through technology, printing and lithographic design can be truly bridged together by defining layout practices and the role of design (Kahng, 2008) (Naser Al-Radaideh, 2013). Graphic designers and creative business people see digital businesses as central to their personal and professional lives (Naser Al-Radaideh, 2013).

Graphic design is closely related to a particular technology, printing (Bonsiepe 2012) in (Neves, 2017). Graphic design and printing technology are inseparable, and the two are very much connected to each other (Naser Al-Radaideh, 2013) Printing, not only as a production technology, but especially as a means of communication, is an important component of understanding graphic design projects, using multiple senses to dominate vision. Printing technology has undergone changes and additions from time to time. This constant transformation is changing, as it appears, the everyday work of commercial artists.

Although industrial procedures of large-scale reproduction influenced the conception of objects and the practice of designers, the preferred media effect of graphic design, printing, existed before the nineteenth century - which marked the industrial revolution - and was already defined by another phenomenon of large-scale reproduction, press with movable type. As a result, graphic design that emerged from industrial possibilities, already owes its capacity to communicate and influence, to a large extent, the rich graphic heritage of text-image relationships from previous centuries (Neves, 2017) The focus of this research is on the analysis of the absorption of the workforce of SMK graduates from the multimedia expertise program who work in the digital printing field, either as employees or opening their own business.

METHOD

This research uses a qualitative research approach with this type of research. The research location is at SMK Negeri 1 Trenggalek which is located at Jl. Brigadier General Sutran No.3, Ngemplak, Sumbergedong, Kec. Trenggalek, Trenggalek Regency, East Java. The population and sample in this study were alumni of the Multimedia Department of SMK Negeri 1 Trenggalek, starting from the first batch who graduated in 2016/2017 to graduates in 2019/2020, as many as 282 people. Data collection techniques with documentation techniques, namely collecting data from documents and report data that are already available. In this study,

researchers used documentation techniques to determine the number of graphic design alumni at SMK Negeri 1 Trenggalek who worked in digital printing. Qualitative descriptive analysis technique. In this study, qualitative data are presented in the form of descriptive descriptions, tables, charts or pictures to facilitate the presentation of information about the number of alumni who work in digital printing from year to year. In this study, qualitative analysis techniques were used to analyze graduates of SMK Negeri 1 Trenggalek, a graphic design expertise program, who worked in digital printing.

RESULT AND DISCUSSION

Economic development in an area must be able to increase the number and types of job opportunities for the people in the area. The regional government and the community together use existing resources, develop and optimize economic sectors in the region, so that the Gross Regional Domestic Product (GRDP) will increase. Economic sectors have an important role in economic development in an area because they will spread in various economic channels so that they are able to move the economy as a whole. The largest absorption of labor in Trenggalek district in 2013 was in the agricultural sector with 55.74% of workers. Next is the workforce in the manufacturing sector with 14.83% of workers, followed by the services sector with 9.70% of workers and the trade, hotel and restaurant sector with 8.70% of workers (Lokakarya, 2013)

BPS data for 2020, the Agriculture, Forestry and Fisheries sector still contributes the largest to Trenggalek's GRDP at 28.05%. Furthermore, the Mining and Quarrying sector contributed 16.82%. Other service industries, including digital printing, were the smallest contributor, at 2.37%. This figure decreased because in 2019 Trenggalek's GRDP from this sector contributed 2.74%. On average, the industry in Trenggalek Regency is classified as a small industry that is scattered and central or clustered whose production concentration is in an area with the same (homogeneous) and informal products (Rini & Suguharti, 2016).

There are 602 registered small, medium and large industrial businesses in Trenggalek district (BPS Trenggalek, 2020). According to the 2019 BPS, the largest labor absorption in Trenggalek Regency was still from the wood industry, goods made of wood and cork and woven goods from bamboo, rattan and the like, which in 2019 absorbed 7.59% of the workforce. Meanwhile, the paper industry and paper goods, printing and reproduction of recording media where digital printing is included in 2019 absorbed 0.26% of the workforce.

Table 1. Business/industrial fields and labor absorption in Trenggalek district

Field of Business/Industry	2014	2015	2016	2017	2018
Wood Industry, Wood Products and Cork and Woven Items from Bamboo, Rattan, and the Like	10.32	9.39	8.72	8.34	7.59
Non-Metal Mineral Industry	5.4	5.29	4.9	5.05	5.02
Furniture Industry	2.46	2.41	2.31	2.11	2.05
Textile and Apparel Industry	0.82	0.78	0.79	0.74	0.73
Other Processing Industries; Service Repair and Installation of Machinery and Equipment	0.78	0.74	0.7	0.66	0.58
Metal Goods Industry; Computers, Electronic Goods, Optics; and Electrical equipment	0.32	0.31	0.29	0.28	0.26
Paper and Paper Goods Industry; Printing and Reproduction of Recorded Media	0.26	0.26	0.25	0.25	0.25
Rubber Industry, Rubber Products and Plastic	0.05	0.05	0.05	0.04	0.04

As the sector that contributes the smallest to GRDP, the absorption of labor in the digital printing industry is also small. Data on the absorption of Multimedia graduates at SMK Negeri 1 Trenggalek for the last 4 years shows that the average graduate working in the digital printing industry is 14.18%.

Table 2. Data on the absorption of Multimedia graduates

No	Graduation year	Number of Graduates	Graduates Work in Digital Printing	Percentage of Working in Digital Printing (%)
1	2016/2017	70	8	11.43
2	2017/2018	69	10	14.5
3	2018/2019	72	12	16.66
4	2019/2020	71	10	14.08
Total graduates		282	40	14.18

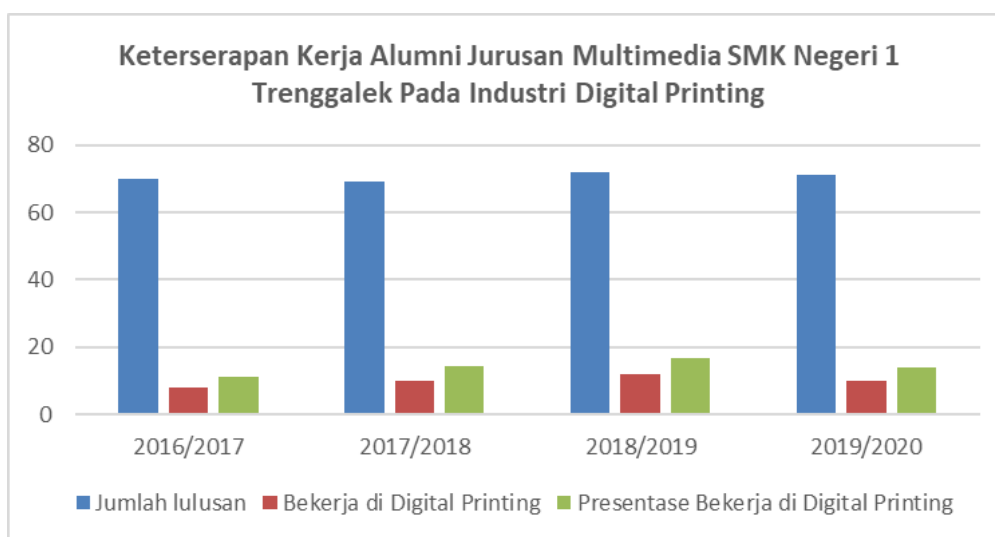


Figure 1. percentage absorption of Multimedia graduates

The absorption of labor referred to here is the number or number of graduates of SMK Negeri 1 Trenggalek majoring in Multimedia who work or are employed in the digital printing industry, with units of people. The results showed that since the first graphic design graduates in 2016/2017 to 2018/2019 the number of job absorption of graphic design graduates in the digital printing industry showed an increase in succession from 11.43% to 14.5%, the next 16.66%. The absorption rate for Multimedia graduates who work in the digital printing industry and or according to their expertise is quite low. The results of this study support Indana's research (2018) which evaluates the employment absorption of SMK graduates from the Computer and Informatics Engineering study program in Trenggalek Regency and obtains the results that gaps occur in the suitability of the field of work and graduate education. As many as 90% of graduates work and continue their education not in the appropriate field and only 10% are working or studying in the relevant field. Only 10% of graduates of computer and informatics engineering expertise in Trenggalek district apply the SKL in their work or education. The relevance of the absorption of graduates between expertise and the field of work with a high level of relevance was found in research by Irsyandi (2018) in the field of technology and engineering for SMK graduates. The results of Irsyandi's research show that 64% of graduates work in relevant areas of competence and 36% are not relevant between fields of expertise and fields of work.

There are several things that affect labor absorption. The first is the increasing number of companies or industries. The number of digital printing businesses affects the absorption of labor in the digital printing industry. So that when the number of companies/businesses in the digital printing industry increases, it will be followed by the absorption of workers in the digital printing industry. In accordance with Safatillah's research, (2014) that the number of companies or an industry has a positive and significant effect on the absorption of the industry's workforce.

The second influencing factor is the increasing demand for digital printing products or services. Absorption of labor in a company or industry will increase if the demand for goods / services increases. This means that the increasing number of requests will encourage an increase in the number of outputs produced and ultimately increase the demand for labor. This is in accordance with Lilyawati & Budhi, (2016) that if the output produced is large, where the demand for these goods will increase, this will encourage an increase in the amount of output produced and ultimately increase the demand for labor.

The higher the working capital of a company, the level of use of production factors will increase (use of machines, labor and inputs or raw materials), which means that the absorption of labor will increase if working capital increases. In 2019/2020 graphic design graduates working in the digital printing industry decreased to 14.08%. This decline in the absorption of graphic design alumni occurred probably because after graduating they were faced with the Covid19 pandemic which had an impact on almost all sectors, including the digital printing industry which also experienced a decline. Sector printing industry (printing) had a big impact as a result of Covid-19. Printing business actors are shattered by unforeseen (unpredictable) conditions, disrupted production, low income, until machine installments fail to pay (bad debt) (Ginanjari et al., 2021). Expenses tend to stay the same, but without income, many digital printing entrepreneurs choose to temporarily close their businesses. This happens because the demand for products/services continues to decline. Declining demand resulted in a decrease in labor absorption, so that graphic design vocational graduates who were absorbed in the digital printing industry in 2019/2020 also experienced a decline.

The thing that needs attention regarding the low absorption of Multimedia skill graduates is the curriculum at SMK Negeri 1 Trenggalek. Evaluating the curriculum to suit the world of work or industry has a big impact on the graduates produced (Pratama, 2019). The curriculum for the Multimedia expertise program at this school is still in the original standard form provided by the government, or has it been adapted to the demands of the world of work or the digital printing industry in the city of Trenggalek. The curriculum that is not in accordance with the business world and the industrial world should be evaluated so that in the future SMK Negeri 1 Trenggalek can produce Multimedia graduates that are in accordance with the existing job fields and equip graduates with qualified skills.

CONCLUSION

Based on the description above, it can be concluded that since the opening of the Multimedia class majoring in graphic design at SMK Negeri 1 Trenggalek, graduates from 2016/2019 to 2018/2019 are absorbed in the digital printing industry. The decline in job absorption experienced a decline in graduates in 2019/2020 possibly due to the impact of Covid19. Graduates are expected to (1) be better able to improve skills, interests, and have confidence, as well as motivation to have a job in accordance with competence; for example by participating in work internships, or increasing sharing/consultation, both with friends, alumni, and teachers; (2) graduates are expected to take advantage of every effort made by the school to help graduates be able to channel them into the world of work properly. To Master; (1) can motivate prospective graduates so that they are willing to explore themselves and maximize the skills they have in regular briefings; (2) able to disseminate information on job vacancies as a whole to prospective graduates and/or graduates. To the BKK Management; (1) can further improve the search for graduates by using online media (school web) and updating data within a certain period; (2) can check or confirm to graduate users (DU/DI), regarding the condition and performance of graduates.

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