# Uncovering Key Economic Drivers in MSMEs through Economic Base Model

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**Abstract**

The importance of leading sectors can contribute to the development of the national economy. The economic advantages of a region serve as a mobilized tool for economic growth and are crucial in creating new business opportunities that can absorb labor. The objective of this research is to determine the leading sector for micro small and medium enterprises as well as the effects of the multiplier effect in Surakarta City in 2022. The method used in this study is the economic base technique. The findings of this study indicate that in the city of Surakarta, there are three leading sectors, namely the service sector, trade, and non-agricultural production. The highest base multiplier and base employment are in the trade sector. Both are likely to be concentrated in the southeast of Surakarta City. These findings imply that the development of leading sectors in Surakarta, such as services, trade, and non-agricultural production, should be focused on increasing efficiency and innovation, not just on increasing the number of workers. In addition, economic policy must consider that, despite the high number of workers, the economic impact may be limited if it is not accompanied by a significant multiplier effect.

**Keywords:** labor; leading sector; economic base model

## 1. Introduction

Micro Small and Medium Enterprises (MSMEs) are one of the important sectors in the economic development of a region. There is potential that needs to be developed in MSMEs as seen from employment opportunities and their contribution to Gross Domestic Product (GDP). This shows that MSMEs are the backbone of the Indonesian economy. Apart from having a strategic role in economic development opportunities in developing countries, MSMEs tend to be drivers of the community's economy (Setyadharma et al., 2018). The strategic role of MSMEs is expected to be able to increase income (Noor Salim et al., 2020).

The role of MSMEs is very large in national economic recovery. As experienced by Indonesia, the MSME sector is considered an important pillar for the national economy. One of the areas with potential for developing MSMEs in Indonesia is the City of Surakarta, Central Java Province. According to the Deputy for Micro Business at the Ministry of Cooperatives and SMEs (KemenKopUKM), Surakarta City is known for its high economic potential for MSMEs, considering that Surakarta City is one of the largest MSME centers in Central Java. The city of Surakarta has enormous economic potential for MSMEs as a cultural and creative city with a large number of MSMEs (Prodjo, 2022). This regional development opportunity must be utilized properly by MSME actors, especially in the city of Surakarta. The number of MSMEs in Surakarta City is better than other areas with urban characteristics in the Central Java region (Padawangi, 2019). The development of MSMEs has enormous and strategic potential in increasing economic activities which are dominated by the service, trade, agriculture and non-agricultural production sectors so that they become an economic driver in the city of Surakarta.

The number of MSMEs in the city of Surakarta has experienced quite good development. Based on the report from the Surakarta City Cooperative, SME and Industry Service (2022), the number of MSMEs based on business scale in Surakarta City experiences fluctuations, with a significant increase every year. See Table 1 for additional information.

**Table 1.** Number of MSMEs Based on Business Scale in Surakarta City in 2019-2022

| Year | Classification of MSMEs | | |
|---|---|---|---|
| | Micro | Small | Intermediate |
| 2019 | 3.029 | 55 | 0 |

| | | | |
|---|---|---|---|
| 2020 | 3.357 | 79 | 44 |
| 2021 | 3.590 | 43 | 2 |
| 2022 | 11.136 | 18 | 3 |

Source: DinKopUKMPerin Surakarta City in 2019-2022

Support from the government and various related parties has brought significant development to MSMEs in the city of Surakarta. The latest data from the Surakarta City Department of Cooperatives, SMEs and Industry shows that the number of MSMEs has increased every year so that in 2022 it will reach 11,157 MSMEs, a drastic increase from 2021 when there were only 3,590 MSMEs.

The potential for MSMEs in Surakarta City is spread across all sub-districts with the largest distribution being in Pasar Kliwon District at 24.05%. Followed by Banjarsari District at 23.43%, Jebres District 22.68%. As many as 16.58% of MSMEs are in Serengan Regency, and the least are in Laweyan District at 13.26% (Wibowo & Sulistyawati, 2024). This is in line with the contribution of MSMEs to regional and national economic growth. The impact of changes due to the Covid-19 pandemic has encouraged digitalization which can increase labor absorption and encourage innovation in the MSME sector (Aprizal & Nurdiansyah, 2023).

The city of Surakarta classifies the MSME sector into four, namely the service sector, trade, agriculture and non-agricultural production. For more details, see table 2.

**Table 2.** Number of Workers per Sector in Surakarta City in 2022

| MSME sector | Labor | |
|---|---|---|
| | Unit | % |
| Service | 1.850 | 11,92 |
| Trading | 12.081 | 77,86 |
| Agriculture | 4 | 0,03 |
| Non-agricultural production | 1.581 | 10,19 |

Source: DisperindagKop MSME Surakarta City in 2022

Based on data from the Surakarta City DisperindagKop in 2022, the total number of MSMEs in the service sector, trade sector, agricultural sector and non-agricultural production sector is 11,157 units. Based on table 2, the trade sector is the highest contributor to labor absorption, amounting to 12,081 people (77.86%) of the total MSME sector in

Surakarta City in 2022. Meanwhile, the agricultural sector is the smallest contributor. The culinary sector still dominates MSMEs in the city of Surakarta.

These two phenomena are interesting, considering that the number of MSME sectors and the number of workers is two components that drive the economy in the city of Surakarta. From these facts, the economic potential of the MSME sector in all sub-districts of Surakarta City can be identified. Opportunities for developing MSMEs in this area have enormous and strategic potential in increasing economic activities which are dominated by the service, trade, agriculture and non-agricultural production sectors.

The potential of the MSME sector in the city of Surakarta as a livelihood for the majority of the community so that it can absorb labor and be able to increase efficiency and encourage innovation in the MSME sector. Sectors that have greater advantages will be able to develop more quickly. Leading sectors are able to make a high contribution to the economic development of a region. The contribution of this sector to economic development is not only limited to increasing income but also includes significant employment. Therefore, understanding and optimizing the role of MSMEs in leading sectors is very important. Thus, the role of MSMEs is very crucial in absorbing work energy in a region so that they can identify the leading sectors and their multiplier factors as the biggest contribution to absorbing work energy in the MSME sector.

Mapping leading sectors and multiplier factors is important to do. This research aims to identify and map the leading sectors in certain areas which can be seen from the potential, type or development of the MSME sector which is able to provide the highest contribution to economic development. Therefore, this research is to show the concentration of the determinants of work energy absorption in MSMEs, leading sectors and economic bases, as well as the multiplier effect based on the service, trade and non-agricultural production sectors in the region, especially all existing sub-districts and sub-districts. in Surakarta City. This research uses a quantitative method approach. The analysis model used in this research, namely Location Quotient (LQ) and Economic Base Model (EBM), is the most appropriate method to use in this research which is supported by business clustering mapping. The values resulting from the LQ and EBM methods are able to provide a real picture of the real value of regional potential (Panjawa et al., 2021).

## 2. Literature Review

### 2.1. Theory

Economic Base Theory assumes that all local economic activities can be identified as basic or non-basic. Firms that sell to both local and an export market must, therefore, be assigned to one of these sectors or some means of apportioning their employment to each sector must be employed. Means of assigning firms to basic and non-basic sectors will be discussed in the various techniques outlined below.

Economic Base Theory asserts that the means of strengthening and growing the local economy is to develop and enhance the basic sector. The basic sector is therefore identified as the "engine" of the local economy. The economic base technique is based on a simple causal model that assumes that the basic sector is the prime cause of local economic growth, that it is the economic base of the local economy. Economic Base Theory also posits that the local economy is strongest when it develops those economic sectors that are not closely tied to the local economy. By developing firms that rely primarily on external markets, the local economy can better insulate itself from economic downturns because, it is hoped, these external markets will remain strong even if the local economy experiences problems. In contrast, a local economy wholly dependent upon local factors will have great trouble responding to economic slumps.

Economic base theory analysis can be used to determine potential sectors and subsectors in a region. If this potential sector can be developed well, it will certainly have a significant influence on the economic growth of a region which can ultimately increase regional income optimally. According to this theory, a region can be divided into mainstay and non-reliance areas which are then modified into potential economic sectors and non-potential economic sectors (Panjawa et al., 2022).

### 2.2.Previous Research

A mapping study identifying leading sectors such as that carried out by Hakim (2021) shows superior results for MSMEs in the culinary sector at the village level. (Wulandari & Tistogondo, 2022) shows that the potential MSME sector in the village is metal-based craft processing and snack food processing. (Sugianto & Permadhy, 2020) provides findings at the village level with the agricultural sector being an economic potential for rice and secondary crops which have export potential. (Zuhannisa & Baroroh, 2022) contributed to a sub-district level study with

technology-oriented goods and services sectors identified as having quite large MSME development.

(Suyatno & Suryani, 2022) conducted a study of the potential of micro and small businesses at the village level, while (Prakoso et al., 2021) at the urban sub-district level identified spatial patterns, opportunities and determinants of labor absorption. (Panjawa et al., 2021) conducted a study at the sub-district level to see the economic potential of the MSME sector and the potential of tourist attractions. Potential identification studies are often carried out at the district or city level, such as (Jauhari, 2020); (Jumiyanti, 2018); (Mayangsari & Sunartomo, 2021); (Rizani, 2019), at the provincial level such as (Basorudin et al., 2021) and at the national level such as (Utomo et al., 2022) which captures the mapping of superior potential, namely fisheries-based processing industries, as well as at the international level (Ajuwon et al., 2017) study in Nigeria.

From the several studies that have been carried out, there has been no significant and specific research regarding the MSME sector that focuses on mapping leading sectors and the potential multipliers of the economic sector on employment at the government level, namely sub-district and sub-district levels. district levels. in the city of Surakarta. Identifying the potential of MSMEs in Surakarta City is important to see the potential for employment and the consistency of the results of previous studies with different approaches in the MSME sector. Apart from that, the city of Surakarta also has the potential to become an area that has enormous economic potential for MSMEs. Therefore, more supportive studies are needed regarding leading sectors in the MSME sector and the multiplier potential of MSMEs. The selection of the MSME sector as the most dynamic business group is seen from the economic conditions of a country and globally. MSMEs are also one of the supporting factors for economic development and improving community welfare.

## 3. Material and Method

### 3.1. Design Study

This study uses a quantitative approach. The type of data used in this research is cross section data, namely data on micro, small and medium enterprises (MSMEs) in 2022 which is aggregated at the sub-district level for the number of workers. Data sourced from the Surakarta City Industry and Trade Service. The

following is a description of the data used in this research, namely data from 5 sub-districts and 55 sub-districts in Surakarta City with a total of 11,157 MSME units and a workforce of 15,516 people in 2022. The analytical tools used are Location Quotient (LQ) and Economic Base Model (EBM) as a local and regional economic analysis used in mapping the potential concentration of regional and local economic activities.

### 3.2. Data Analysis

Location Quotient (LQ) analysis shows the size of industrial concentration in an area relative to a reference area which is generally still part of a region. Location Quotient (LQ) in this study is used to compare the sector share according to relative area labor (subdistricts in Surakarta City) with the reference area labor share (subdistricts in Surakarta City). Location Quotient (LQ) is formulated as:

$$LQ_i = \frac{Eir/Er}{Ein/En}$$

$Eir$ = sector i workforce in the relative area (subdistrict); $Er$ = total workforce in the relative area (subdistrict); $Ein$ = sector i workforce in the reference area (district); $En$ = total workforce in the reference area (district); LQ > 1 is the base sector; LQ < 1 is a non-base sector; LQ = 1 resident sector (Dinc, 2002); (Panjawa et al., 2022); (Prakoso et al., 2021).

In addition, the Economic Base Model technique was carried out as a regional and local analysis to predict the impact of new economic activities in a region on employment or the number of businesses in local communities. The economic base technique is the oldest, simplest and most widely used technique for regional economic analysis. The Economic Base Model assumes that all local economic activities can be identified as basic or non-basic. The Basic Sector consists of local businesses that are completely dependent on external factors. In contrast, the Non-basic Sector consists of businesses that are highly dependent on local business conditions. The economic base analysis technique used uses the Location Quotient technique (Gkouzos & Christofakis, 2018); (Perry, 2019); (Prakoso et al., 2021). The following is the formula for estimating basic workers in sector i a region.

$$EBMir = \left[1 - \frac{1}{LQi}\right] * Eir$$

EBM is the basic employment of sector i in the reference region r, LQi is the LQ value of sector i of a region, namely the employment of sector i in the reference region r.

Furthermore, the method for estimating the impact of the basic sector on the local economy is the Base Multiplier, namely the ratio of the number of jobs in year t to the basic sector jobs in that year. It can also be defined as an employment multiplier that estimates the local basic sector employment impact and allows analysts to project the creation of non-basic sector jobs in the presence of an increase in basic sector employment. The basic multiplier is calculated through the following ratio:

$$BM = \frac{E_r^t}{EBM_r^t}$$

BM is basic employment in year t in region r. Base Multiplier can provide an idea of how many non-basic jobs are created by one basic job.

## 4. Result

Research was conducted in 55 sub-districts in 5 sub-districts in Surakarta City. In order to identify leading sectors in MSMEs and the multiplier effect based on the absorption of the number of workers which are classified into three sectors, namely the service sector, trade and non-agricultural production using regional and local economic analysis. The data used is follow-up survey data on MSMEs in 2022. The results of the analysis are presented in two stages, namely based on Location Quotient and Economic Base Model analysis according to each sector.

Location Quotient (LQ) analysis is an approach technique in regional analysis that can be used to determine the base sub-district areas in Surakarta City that have the ability and potential to develop the potential of leading MSME sectors based on the absorption of the number of workers. Determining base or non-base sub-districts for potential MSME sectors which are clustered into three sectors. The following is a table of LQ calculation results on the superior potential of the MSME sector in Surakarta City based on the absorption of the number of workers presented in Table 3.

**Table 3.** Location Quotient According to Surakarta City Workers

| District | Sub-District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Service Sector | Trade | Non-Agricultural Production | |
| Banjarsari | Banjarsari | 1.89 | 0.89 | 0.85 | 3.63 |
| | Banyuanyar | 1.58 | 0.96 | 0.44 | 2.98 |
| | Gilingan | 0.91 | 0.99 | 1.24 | 3.15 |
| | Joglo | 1.12 | 0.98 | 1.05 | 3.15 |
| | Kadipiro | 1.24 | 1.03 | 0.13 | 2.39 |
| | Keprabon | 0.73 | 0.92 | 2.66 | 4.31 |
| | Kestalan | 0.25 | 1.10 | 0.98 | 2.34 |
| | Ketelan | 0.71 | 0.96 | 2.16 | 3.82 |
| | Manahan | 0.50 | 1.13 | 0.08 | 1.72 |
| | Mangkubumen | 0.65 | 1.08 | 0.60 | 2.33 |
| | Nusukan | 1.14 | 0.99 | 0.86 | 2.99 |
| | Punggawan | 0.92 | 1.02 | 0.83 | 2.77 |
| | Setabelan | 0.91 | 1.06 | 0.27 | 2.24 |
| | Sumber | 1.00 | 0.93 | 1.93 | 3.86 |
| | Timuran | 1.46 | 0.93 | 1.16 | 3.55 |
| Pasar Kliwon | Baluwarti | 1.05 | 1.03 | 0.81 | 2.90 |
| | Gajahan | 0.66 | 0.84 | 2.09 | 3.58 |
| | Joyosuran | 0.97 | 1.16 | 0.22 | 2.34 |
| | Kampung Baru | 0.80 | 1.08 | 0.73 | 2.62 |
| | Kauman | 0.59 | 1.15 | 0.53 | 2.27 |
| | Kedung Lumbu | 0.46 | 1.03 | 1.21 | 2.71 |
| | Mojo | 1.33 | 1.03 | 0.63 | 2.98 |
| | Pasar Kliwon | 0.39 | 0.97 | 1.58 | 2.94 |
| | Sangkrah | 1.00 | 0.93 | 1.36 | 3.29 |
| | Semanggi | 1.27 | 1.05 | 0.53 | 2.85 |
| Laweyan | Bumi | 1.06 | 0.18 | 1.13 | 2.37 |
| | Jajar | 0.70 | 0.12 | 0.75 | 1.57 |
| | Karangasem | 0.72 | 0.12 | 0.76 | 1.61 |
| | Kerten | 1.19 | 0.21 | 1.27 | 2.67 |
| | Laweyan | 0.37 | 0.06 | 0.39 | 0.82 |

| District | Sub-District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Service Sector | Trade | Non-Agricultural Production | |
| | Ngemplak | 7.72 | 1.34 | 8.21 | 17.26 |
| | Pajang | 1.57 | 0.27 | 1.67 | 3.51 |
| | Panularan | 1.14 | 0.20 | 1.22 | 2.56 |
| | Penumping | 0.38 | 0.07 | 0.40 | 0.85 |
| | Purwosari | 1.53 | 0.27 | 1.63 | 3.43 |
| | Sondakan | 0.52 | 0.09 | 0.55 | 1.16 |
| | Sriwedari | 0.95 | 0.16 | 1.01 | 2.12 |
| Jebres | Gandekan | 0.76 | 1.04 | 0.93 | 2.73 |
| | Jagalan | 0.56 | 1.06 | 1.17 | 2.78 |
| | Jebres | 1.06 | 0.97 | 1.30 | 3.33 |
| | Kepatihan Kulon | 1.00 | 1.04 | 0.50 | 2.54 |
| | Kepatihan Wetan | 1.32 | 0.90 | 1.62 | 3.84 |
| | Mojosongo | 1.51 | 0.91 | 1.09 | 3.51 |
| | Pucang Sawit | 1.34 | 0.93 | 1.16 | 3.44 |
| | Purwadiningratan | 0.56 | 1.06 | 1.13 | 2.74 |
| | Sewu | 1.39 | 0.98 | 0.47 | 2.84 |
| | Sudiroprajan | 0.08 | 1.19 | 0.35 | 1.62 |
| | Tegalharjo | 1.01 | 0.99 | 1.05 | 3.06 |
| Serengan | Danukusuman | 0.68 | 1.26 | 0.30 | 2.24 |
| | Jayengan | 2.68 | 1.28 | 0.37 | 4.33 |
| | Joyotakan | 1.28 | 1.17 | 0.42 | 2.87 |
| | Kemlayan | 0.90 | 1.25 | 0.16 | 2.31 |
| | Kratonan | 0.51 | 1.09 | 0.52 | 2.12 |
| | Serengan | 0.72 | 1.10 | 0.35 | 2.17 |

Source: research data, 2024 (processed)

Base Employment and Base Multiplier are concepts that are often used in regional economic analysis, especially in the Economic Base Model. Base employment (BE) refers to the number of workers working in economic sectors that produce goods and services for export outside the region. These sectors are referred to as base sectors. Labor in the base sector generates income that comes from outside the region, thereby helping to improve the

local economy. The base sector is considered the main driver of economic growth because the income generated is used to purchase local goods and services supporting the non-base sector. The following is a table of BE calculation results on the superior potential of the MSME sector in Surakarta City based on the absorption of the number of workers presented in Table 4.

**Table 4.** Base Employment According to the Surakarta City Workforce

| District | Sub- District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Services Sector | Trade | Non-Agricultural Production | |
| Banjarsari | Banjarsari | 14 | - | - | 14 |
| | Banyuanyar | 3 | - | - | 3 |
| | Gilingan | - | - | 9 | 9 |
| | Joglo | 6 | - | 1 | 7 |
| | Kadipiro | 4 | 3 | - | 7 |
| | Keprabon | - | - | 21 | 21 |
| | Kestalan | - | 9 | - | 9 |
| | Ketelan | - | - | 6 | 6 |
| | Manahan | - | 23 | - | 23 |
| | Mangkubumen | - | 15 | - | 15 |
| | Nusukan | 12 | - | - | 12 |
| | Punggawan | - | 2 | - | 2 |
| | Setabelan | - | 17 | - | 17 |
| | Sumber | - | - | 9 | 9 |
| | Timuran | 11 | - | 2 | 13 |
| Pasar Kliwon | Baluwarti | 1 | 1 | - | 2 |
| | Gajahan | - | - | 42 | 42 |
| | Joyosuran | - | 2 | - | 2 |
| | Kampung Baru | - | 1 | - | 1 |
| | Kauman | - | 1 | - | 1 |
| | Kedung Lumbu | - | - | 5 | 5 |
| | Mojo | 34 | 4 | - | 38 |
| | Pasar Kliwon | - | - | 32 | 32 |
| | Sangkrah | - | - | 51 | 51 |

| District | Sub- District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Services Sector | Trade | Non-Agricultural Production | |
| | Semanggi | 16 | 4 | - | 20 |
| Laweyan | Bumi | - | - | - | 0 |
| | Jajar | - | - | - | 0 |
| | Karangasem | - | - | - | 0 |
| | Kerten | 2 | - | 1 | 3 |
| | Laweyan | - | - | - | 0 |
| | Ngemplak | 1 | - | - | 1 |
| | Pajang | 22 | - | 22 | 44 |
| | Panularan | 12 | - | 6 | 18 |
| | Penumping | - | - | - | 0 |
| | Purwosari | 12 | - | 3 | 15 |
| | Sondakan | - | - | - | 0 |
| | Sriwedari | - | - | - | 0 |
| Jebres | Gandekan | - | 6 | - | 6 |
| | Jagalan | - | 4 | 1 | 5 |
| | Jebres | 5 | - | 13 | 18 |
| | Kepatihan Kulon | - | 7 | - | 7 |
| | Kepatihan Wetan | 4 | - | 4 | 8 |
| | Mojosongo | 33 | - | 3 | 36 |
| | Pucang Sawit | 35 | - | 8 | 43 |
| | Purwadiningratan | - | 25 | 4 | 29 |
| | Sewu | 10 | - | - | 10 |
| | Sudiroprajan | - | 65 | - | 65 |
| | Tegalharjo | - | - | 1 | 1 |
| Serengan | Danukusuman | - | 31 | - | 31 |
| | Jayengan | - | 18 | - | 18 |
| | Joyotakan | 6 | 18 | - | 24 |
| | Kemlayan | - | 13 | - | 13 |
| | Kratonan | - | 6 | - | 6 |
| | Serengan | - | 9 | - | 9 |

Source: research data, 2024 (processed)

Meanwhile, the Base Multiplier (BM) is a ratio that describes how many total jobs (both in the base and non-base sectors) are created as a result of one job in the base sector. Base Multiplier measures the impact of economic multipliers. When jobs are created in the base sector it can generate income to be spent in the local area and create more jobs in the non-base sector. To determine the multiplier impact of leading sectors on labor absorption, they are classified into three sectors, namely the service sector, trade sector and non-agricultural production sector. The following is a table of BM calculation results on the superior potential of the MSME sector in Surakarta City based on the absorption of the number of workers presented in Table 5.

**Table 5.** Base Multiplier According to Surakarta City Workforce

| District | Sub- District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Services Sector | Trade | Non-Agricultural Production | |
| Banjarsari | Banjarsari | 2 | - | - | 2 |
| | Banyuanyar | 3 | - | - | 3 |
| | Gilingan | - | - | 5 | 5 |
| | Joglo | 9 | - | 22 | 31 |
| | Kadipiro | 5 | 35 | - | 40 |
| | Keprabon | - | - | 2 | 2 |
| | Kestalan | - | 11 | - | 11 |
| | Ketelan | - | - | 2 | 2 |
| | Manahan | - | 8 | - | 8 |
| | Mangkubumen | - | 14 | - | 14 |
| | Nusukan | 8 | - | - | 8 |
| | Punggawan | - | 44 | - | 44 |
| | Setabelan | - | 17 | - | 17 |
| | Sumber | - | - | 2 | 2 |
| | Timuran | 3 | - | 7 | 10 |
| Pasar Kliwon | Baluwarti | 19 | 250 | - | 269 |
| | Gajahan | - | - | 2 | 2 |
| | Joyosuran | - | 64 | - | 64 |
| | Kampung Baru | - | 133 | - | 133 |

| District | Sub- District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Services Sector | Trade | Non-Agricultural Production | |
| | Kauman | - | 109 | - | 109 |
| | Kedung Lumbu | - | - | 6 | 6 |
| | Mojo | 4 | 217 | - | 221 |
| | Pasar Kliwon | - | - | 3 | 3 |
| | Sangkrah | - | - | 4 | 4 |
| | Semanggi | 5 | 117 | - | 122 |
| Laweyan | Bumi | 18 | - | 9 | 27 |
| | Jajar | - | - | - | 0 |
| | Karangasem | - | - | - | 0 |
| | Kerten | 6 | - | 5 | 11 |
| | Laweyan | - | - | - | 0 |
| | Ngemplak | 1 | - | - | 1 |
| | Pajang | 3 | - | 2 | 5 |
| | Panularan | 8 | - | 6 | 14 |
| | Penumping | - | - | - | 0 |
| | Purwosari | 3 | - | 3 | 6 |
| | Sondakan | - | - | - | 0 |
| | Sriwedari | - | - | 133 | 133 |
| Jebres | Gandekan | - | - | 24 | - |
| | Jagalan | - | - | 19 | 19 |
| | Jebres | - | 18 | - | 18 |
| | Kepatihan Kulon | 8 | 380 | 28 | 416 |
| | Kepatihan Wetan | - | 4 | - | 4 |
| | Mojosongo | - | 3 | - | 3 |
| | Pucang Sawit | - | 4 | - | 4 |
| | Purwadiningratan | 3 | - | 18 | 27 |
| | Sewu | 2 | 4 | - | 6 |
| | Sudiroprajan | 3 | - | 6 | -9 |
| | Tegalharjo | - | 92 | - | 92 |
| Serengan | Danukusuman | - | 5 | - | 5 |

| District | Sub- District | Labor | | | Total |
|---|---|---|---|---|---|
| | | Services Sector | Trade | Non-Agricultural Production | |
| | Jayengan | - | 5 | - | 5 |
| | Joyotakan | 5 | 7 | - | 12 |
| | Kemlayan | - | 5 | - | 5 |
| | Kratonan | - | 12 | - | 12 |
| | Serengan | - | 11 | - | 11 |

Source: research data, 2024 (processed)

## 5. Discussion

Identification of leading sectors is carried out by calculating the Location Quotient (LQ) analysis technique. The LQ value was calculated for each sub-district in the research area and for each sub-sector of the service sector, trade sector and non-agricultural production sector. In order to obtain the spatial pattern of the base sector, you can see the LQ results in this research at the sub-district level according to the MSME sector based on labor absorption, namely the largest contribution from the leading sector in the trade sector. In other words, the trade sector is a basic sector or has greater potential than other sectors to be further developed. To find out which trade sector MSME areas are classified as basic and non-based, a value is applied based on the number of workers. This is intended to identify MSME areas that have competitive/comparative advantages that not only grow the economic sector but also increase labor absorption capacity in each sub-district in Surakarta City.

The results of the LQ calculation can be seen in table 3 showing that the leading sector category which makes the largest contribution to the absorption of the number of workers in the city of Surakarta is the trade sector. MSMEs in the trade sector in the city of Surakarta are one of the largest contributors to employment opportunities in this city, so they have a significant role in absorbing labor in the city of Surakarta. This is supported by the development of digital technology and e-commerce in the city of Surakarta which provides additional encouragement for MSMEs in the trade sector to develop and absorb more workers. In addition, government policy support and infrastructure are very important in creating jobs and improving local economic prosperity. Therefore, this sector has become an important pillar in economic development so that it has become a leading sector in the city of Surakarta.

Based on the calculation results above, there are 26 sub-districts with the trade sector as the leading sector. The 26 sub-districts are Kadipiro, Kestalan, Manahan, Mangkubumen, Punggawan and Setabelan sub-districts in Banjarsari District. Baluwarti, Joyosuran, Kampung Baru, Kauman, Kedung Lumbu, Mojo and Semanggi sub-districts in Pasar Kliwon District. Ngemplak Village in Laweyan District. Gandekan, Jagalan, Kepatihan Kulon, Purwodiningratan, and Sudiroprajan sub-districts in Jebres District. Danukusuman, Jayengan, Joyotakan, Kemlayan, Kratonan, Serengan, and Types sub-districts in Serengan District. This sub-district has an LQ value > 1, meaning that the trading business sector is the basic sector or has a comparative advantage regarding labor. The LQ value in this sub-district shows the high potential for excellence in the trade business sector in absorbing labor. Thus, the potential for employment in the trading business sector is quite good so that trading businesses become the basic sector or leading sector in terms of employment or labor absorption. Meanwhile, 29 other sub-districts have an LQ value < 1, which indicates that the trade business sector is a non-based sector in that sub-district. This means that the workforce in the trade business sector in the sub-district is a non-based sector or does not have a comparative advantage.

Apart from identifying the base sector in MSMEs, this research also identifies and projects how large the base sector is formed from the multiplier effect. An area with more base sectors will increase the flow of income to that area, increase demand for goods and services in it and cause an increase in the volume of the non-base sector. Base Employment refers to the number of jobs in base sectors, namely sectors that bring in income from outside the region. This sector usually includes industries such as crafts, batik, culinary and tourism. Meanwhile, the Base Multiplier measures the impact of employment in the base sector on total employment in the local economy. This shows how jobs in the base sector create additional jobs in non-base sectors through an economic multiplier effect. In this context, the MSME sector shows the crucial role of MSMEs in creating jobs and supporting local economic growth. By absorbing a large number of workers, increasing skills, and creating a multiplier effect in the local economy, MSMEs contribute significantly to economic stability and community welfare. In the city of Surakarta, this contribution is very visible through the various MSME sectors which are developing rapidly.

The largest employment base for Surakarta City is in Pasar Kliwon District with a total of 236 workers. However, the leading sector from a Base Employment perspective is in Serengan District with the trade sector being the priority leading sector in Surakarta City. Base Employment in the service sector is only found in Jayengan and Joyotakan

Subdistricts with Base Employment of 39 and 6 respectively from the total service sector in their respective areas. The non-agricultural production sector does not have Base Employment. Meanwhile, the highest Base Employment in the trade sector is respectively in Danukusuman, Types, Jayengan, Joyotakan, Kemlayan, Serengan, and Kratonan with Base Employment of 31, 25, 18, 18, 13, 9, and 6 of the total sectors respectively. trade in their respective regions. Danukusuman Subdistrict is a subdistrict with a superior sector of 31, meaning that 31 are assumed to be basic sector jobs in Danukusuman Subdistrict which only consists of the trade sector itself. Thus, the majority of jobs in Danukusuman Village are concentrated in the trade sector. On the other hand, Serengan District has the lowest Base Multiplier among other sub-districts with a total of 53 workers.

The largest base multiplier for Surakarta City is in Jebres District with a total of 375 workers. However, the leading sector from a Base Multiplier perspective is in Pasar Kliwon District with the trade sector being the priority leading sector in Surakarta City. The base multiplier for the service sector is only found in Baluwarti, Mojo and Semanggi sub-districts, with each base multiplier amounting to 18, 5 and 4 of the total service sectors in their respective areas. The base multiplier for the non-agricultural production sector is also only found in Kedung Lumbu, Sangkrah and Gajahan sub-districts, with each base multiplier of 6, 4 and 2 of the total non-agricultural production sectors in their respective areas. Meanwhile, the Base Multiplier for the trade sector is found in several sub-districts, namely Mojo, Baluwarti, Kedung Lumbu, Semanggi, Kampung Baru, Kauman, and Joyosuran with each Base Multiplier of 40, 36, 31, 20, 14, 8, and 7. total trade sectors in each region. Mojo Subdistrict is a subdistrict with a superior sector with the highest multiplier, namely 40, meaning that if one basic sector appears in Mojo Subdistrict, it will be able to create 39 non-basic sectors in that output. The Base Multiplier for the service sector is 4, meaning that if there is one basic sector job it will create 3 non-basic sector jobs within the service sector itself. The service sector multiplier is better than the non-agricultural production sector because it does not have a Base Multiplier.

## 6. Conclusion, Implication, and Recommendation

Research findings show that the most superior sector to be developed in order to increase labor absorption in the city of Surakarta is the trade sector. The absorption of labor that arises from the development of regional superior businesses has an impact on the economy at large. The Base Employment value of a sector is assumed to be the basic employment of a sector. The size of the Base Multiplier will influence the number of non-basic sector jobs created. When one region becomes a basic sector, other multipliers will

arise. In the Surakarta City area, the distribution of the leading MSME sectors is in three business sectors, namely the service sector, trade and non-agricultural production.

Based on all business sectors in the city of Surakarta, the highest Base Employment is in Serengan District, southern region, which is strengthened by the presence of handicrafts, culinary delights, and traditional markets and shopping centers, while the highest Base Multiplier is in Pasar Kliwon District, southeast region, where this district is famous for the largest textile market, the klewer market, and the batik cloth trading center "Kampung Batik Kauman" in this sub-district. Leading sectors in the context of Base Employment and Base Multiplier do not always have to be the same in every region. Even though there is a relationship between the two, sectors that are superior based on Base Employment do not automatically become superior when viewed from the Base Multiplier and vice versa.

This finding is the highest policy priority for the city government in encouraging the development of regional superior businesses so that they are able to absorb labor which has an impact on the economy at large. This can be done by clustering based on the MSME sector at all sub-district levels with a focus on labor and economic development. Therefore, attention needs to be paid to training to increase the workforce and strengthening institutions that apply to all sectors, not only leading sectors, but non-leading sectors as well. Regarding analytical tools, it only identifies leading sectors over a one-year period. Thus, the next study can add other analytical tools such as input output and a longer observation period, as well as identify in more depth the MSME sub-sector.

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