



Application of machine learning for modeling of knowledge of factors affecting the success of msmes case study of central Lombok district

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ABSTRACT

Micro, Small and Medium Enterprises have an important role in encouraging economic growth from various parts of Indonesia, especially in Central Lombok district. This study aims to determine the influence factors that are very important to not so important that affect the success of SMEs in Central Lombok district by using the research method Formal Concept Analysis. By using 36 sub-factors as attributes, and 30 samples were analyzed in four stages, namely formal context, formal concept, concept lattices, to iceberg concept lattices, so that the results of thirteen intents were found, namely Giving Discounts to Customers, Sales Promotion on Social Media, Saving Money in the Bank, Teamwork is considered Important, Source of Capital is considered Personal, Origin of the Company is considered Personal, Reciprocity to Customers, Business Training and Development, Social Media Sales with Facebook, Business Liquidity is Considered Adequate, Product Prices are at Market Prices, Customer Service is Assessed Good, and the last one is attending training from an agency or government, which is obtained from the iceberg concept lattices by applying a minimum support extent of 67%, and it is stated that it is an important factor that influences the success of MSMEs in Central Lombok district, while the intent is not included in the results of the iceberg concept lattice. stated factor that is not then it is important that can affect the success of MSMEs in Central Lombok Regency).

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1. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) play an important role in driving Indonesia's economic growth, the contribution of MSMEs in the Central Lombok district which has Natural Resources (SDA) that can be utilized by the local community such as in the craft sector or handicrafts (handcraft), and business sectors such as services, food processing, fashion and other sectors. This type of business is also a skilled driver of economic growth in every region, including the district of Central Lombok (Munir, 2022).

Central Lombok Regency is one of the regencies in Indonesia which is located in West Nusa Tenggara Province and is famous for having many tourist attractions, supported by the Lombok International Airport (BIL) located in Central Lombok Regency. Central Lombok has now played a role in the successful construction of the Pertamina Grand Prix Of Indonesia or better known as the Mandalika International Circuit as the venue for the WSBK World Super Bike closing series and also the MotoGP racing event which has been held in the Kuta Mandalika area, Central Lombok (Permadi, Darwini, Retnowati, & Wahyulina, 2019).

With the several advantages possessed by Central Lombok district, it can be believed that it will have a good impact on Central Lombok, especially increasing the interest of foreign tourists to visit Central Lombok, then Central Lombok MSMEs must play a role, one example is to benefit from international events. and by increasing the creativity and quality of their business products. Currently, MSMEs in Central Lombok district are increasing and as a profession whose demand continues to increase, from data obtained from the Cooperatives and MSMEs Service of Central Lombok Regency, it is explained that an increase in MSMEs from 2020-2021 has increased, recorded the number of MSMEs in 2020 reached 22,564 until there is an increase in 2021 to reach 23,768, this data is taken from MSME data based on gender from each sub-district in Central Lombok district (Ariani, Ekayani, Suriani, & Kusyanda, 2022).

Although the number of MSMEs in Central Lombok has increased demand based on data from the Cooperatives and MSMEs Office of Central Lombok Regency, there are still some MSMEs who do not understand what needs to be considered in the strategy in their business sector, especially new MSMEs as entrepreneurs who are new to the sector. business, and there are also several MSMEs based on research results who experienced business failures due to lack of understanding of the success factors of their business, so that they are always able to survive and be able to be competitive and develop, therefore this research aims to find the factors that can affect the success of MSMEs in Central Lombok district from so important to not so important so that it can be useful for MSMEs to continue to be able to survive and be able to be competitive and develop their businesses, as well as related agencies that participate in encouraging the growth of MSMEs in Lombok Tengah district. In addition, the MSME Development Department of Bank Indonesia has stated that the mastery of technology and innovation of Indonesian MSMEs is still lower than the average in Asian countries.

Utilization of the internet is very important for MSMEs in marketing and promoting their business because MSMEs need to pay attention to several important factors in improving skills, both in marketing, being able to be competitive and developing business in the face of global competition.

In recent years, research on Formal Concept Analysis (FCA) has become increasingly interesting to examine, because FCA is a data mining technique that can provide flexible data results, pattern realization, relationships between variables, and visualization of a database (Dewangga, Rizal, and Hidayat. 2020)

The FCA method was first described by Rudolf Wille in 1981, FCA functions as a transdisciplinary mathematics that allows the joining of mathematical thinking with other ways of thinking so that it can support human thinking and various actions. FCA started from the restructuring of mathematics, especially discussing the theory of mathematical knowledge and lattices theory. since then it has been developed into a sub-field of applied mathematics which is based on the concept of mathematization and in the form of a hierarchical concept (Muslim, et al. 2020)

After identifying and collecting data on the factors that influence the success of MSMEs using a questionnaire, the factors obtained will then be processed into several parts of MSME success factors. Then, an analysis of data patterns from MSMEs will be carried out using FCA, and by incorporating the concept of formal context , formal concept and concept lattices with iceberg concept lattices.

Existence of research analysis of the pattern of factors that influence the success of MSMEs in Central Lombok using FCA will find factors that are more important and not so important to the success of MSMEs in Central Lombok district. The results obtained can help Central Lombok MSMEs, especially those who are just starting a business, so that they are able to be competitive and able to innovate and develop their business, and will also be useful for the regional government of Central Lombok district in finding factors that influence business success from very important to things that are not that important.

2. RESEARCH METHOD

This study focuses on collecting data on MSMEs in Central Lombok district. From the data from the Cooperatives and SMEs Office in Central Lombok, it was recorded that the number of MSMEs in Central Lombok district was 23,768 in 2021, this data is also from the combined number of new MSMEs in Central Lombok district.

The Department of Cooperatives and SMEs in Central Lombok Regency launched that MSMEs in Central Lombok Regency were grouped into 7 business sectors based on clusters, namely food processing and culinary, handicrafts, trade, services, livestock farming and fisheries, and finally building materials.

Based on 7 groups of business sectors from the Cooperatives and MSMEs in Central Lombok district, this study will add the number and types of MSME sectors to represent the sample data in this study with the aim of optimizing the results of the research that will be obtained, as for the type or business sector used. In this study, 10 business sectors will be taken including agribusiness, culinary, fashion, education, and automotive, technology and information, travel, building shops, trade and services, as well as printing. Of the 10 business sectors that will represent MSMEs as many as 30 business fields as a sample of 10 types of business sectors consisting of the size of Micro, Small and Medium Enterprises. Data collection will be carried out by providing a summary in the form of a data retrieval questionnaire to a number of business owners or owners or it could be with the manager who has received direct orders or authority from the owner.

3. RESULTS AND DISCUSSIONS

3.1 Description of Object

This study uses primary data from 30 MSMEs in Central Lombok district consisting of the size of Micro, Small, and Medium Enterprises, based on 7 business sectors, data from the Central Lombok Cooperatives and MSMEs Service in the form of clusters as attached in Appendix 3, based on these data. in this study involved more business sectors, namely as many as 10 business sectors in Central Lombok compared to data from the Cooperatives and MSMEs office in Central Lombok, while the aim was to cover more sectors and get more data from 10 business sectors in Central Lombok, and also Sampling of 30 MSMEs that have been successfully collected as samples in the study has been fairly large in the FCA method, because the samples used by previous researchers were Muslim et al. 2020, only uses 14 businesses that include 2 sizes of businesses, namely Small and Medium to seven business sectors as samples in their research, and because FCA is a data analysis that is not quite suitable for analyzing large-scale data, so that the use of data from the FCA method is not much. 9]. According to Kester Quist Aphetsi 2019, with his research entitled Using Formal Concepts Analysis Techniques in Mining Data, also explained that FCA has difficulties in processing large data, so it is necessary to further develop the FCA method [Kester, Quist-Aphetsi. 2019]. In Napoli Amedeo's 2020 research, entitled An Introduction to Formal Concept Analysis, it also explains that until now the FCA method is still in the process of research conducted by several researchers in the United States to improve FCA's ability to process big data [Napoli, 2020]. Thus the

application of 30 MSMEs from 10 business sectors in Central Lombok district as the number of samples in this research.

MSME data in Central Lombok was obtained by providing a summary in the form of a questionnaire distributed to 30 MSMEs in Central Lombok, the data was obtained in 2 ways, namely through the distribution of questionnaire sheets which were answered manually by the respondents, and the second by using Google Forms.

In table 1 below are the business names of 30 MSME respondents from 9 sub-districts that have been obtained in Central Lombok based on 10 business sectors that have become the object of research in obtaining data, and accompanied by a photo attachment code.

Table 1. Names of central Lombok MSMEs originating from 9 sub-districts

NO	Business Sector	Business Name	Size	Photo Attach Code
1	Agribusiness	1 Walet H	Micro	A1L1
		2 Walet J	Small	A2L2
		3 Ternak Walet	Medium	A3L3
2	Culinary	4 Aldaizi/Kuliner	Micro	K1L4
		5 Ud. Azhari/Kuliner	Small	K2L5
		6 Kopi ELB Kuliner	Medium	K3L6
3	Fashion	7 SasamboRembitanS,F	Micro	F1L7
		8 Odean Songket	Small	F2L8
		9 Donat Fashion	Medium	F3L9
4	Education	10 Modus Kartini Muda	Micro	P1L10
		11 P-Com Education	Small	P2L11
		12 Ganesa Opration	Medium	P3L12
5	Automotive	13 Arkan Motor	Micro	O1L13
		14 Cahaya Motor	Small	O2L14
		15 Duta Ban Otomotif	Medium	O3L15
6	Technology and Information	16 Mutiara Komputer	Micro	T1L16
		17 Lombok IT .Com	Small	T2L17
		18 J. Prima Jaya	Medium	T3L18
7	Travel	19 Almina Travel	Micro	TR1L19
		20 Perjalanan Wisata	Small	TR2L20
		21 Asha Ramas Anugrah	Medium	TR3L21
8	Construction equipment store	22 UD. Mekar	Micro	T B1L22
		23 UD. B. Bersama	Small	TB2L23
		24 Budi Rahman Toko	Medium	TB3L24
9	Trading and Service	25 Ud.Terang Terus	Micro	PJ1L25
		26 Yulia Pottery	Small	PJ2L26
		27 Nada Gadai/Jasa	Medium	PJ3L27
10	Printing	28 Print Dan Percetakan	Micro	PRC1L28
		29 Agung Printing	Small	PRC2L29
		30 Alfa Print Digital	Medium	PRC3L30

Table1 explains the 30 names of Central Lombok MSMEs originating from 9 sub-districts that have been collected, where in general the Central Lombok district has as many as 12 sub-districts, but in this study only managed to get 30 business names from 9 sub-districts that were willing to be respondents in obtaining data in this study, as for the sub-districts as objects in this study, including the Kec. Pujut, Kec. Praya, Kec. Praya Barat, Kec. Batukliang Utara, Kec. Kopang, Kec. Pringga Rata, Kec. Jonggat, Kec. Praya Tengah, and Kec. Southwest Praya, and table 4.9 also explains 3 business sizes from 10 business sectors accompanied by a photo code for visits which can be seen in the photo attachment, and table 1 also explains that there are 10 Central Lombok Micro-scale MSMEs, 10 small-scale MSMEs, and 10 Medium MSMEs as respondents in data collection. After 30 MSME data in Central Lombok has been obtained, then the attribute scaling stage will be carried out.

3.2 Attribute Scaling

Central Lombok UMKM data that has been obtained consists of one attribute value (One Valued Attributes) and many attribute values (Many Valued Attributes), Central Lombok UMKM data that has many attribute values, attribute scaling must be made. The purpose of attribute scaling is to categorize attribute values and attribute scaling is also very important to do because attribute scaling affects research results.

3.3 Data Analysis

In data analysis, analysis will be carried out using Formal Concept Analysis (FCA) of each data that has been obtained through a questionnaire, which consists of 4 stages, from formal context, formal concept, concept lattices, to the last Iceberg concept lattices to find results in the analysis of any data obtained from Central Lombok SMEs.

3.3.1 Formal Context

Formal Context is a context that consists of one valued attributes and many valued attributes, while many valued attributes can be seen in table 4.10 attribute scaling. The formal context is symbolized (G,M,I), and many valued attributes are symbolized (G,M,W,I). All of the results of scaling attributes in more than one context are called many-valued contexts as described in table 4.10, scaling attributes, while merging all scaling attributes into one context is called one-valued context. So in this formal context, the object G are 30 business names of SMEs in Central Lombok district, and as attribute M are 36 sub-factors, and are accompanied by attribute values as W or the value of each attribute that has a value on several attributes.

In the attribute scaling from table 4.10 there is still a split context or more than one context called the many-valued context, then it will be merged into a single table called a one-valued context, a one-valued context table which is an amalgamation of all attribute scaling, which contains objects and attributes as well as the value of several attributes, and there is also data from questionnaires or answers from respondents of MSMEs in Central Lombok which are marked with an X, thus the one-valued context table is the first stage of analysis that is combined in one table for each data or value. obtained from respondents who explain each attribute and its value will be adjusted to the choices of the respondents based on the questionnaires that have been distributed so that it will greatly facilitate researchers in knowing the relationship between objects and attributes in the one-valued context table, thus forming a one-valued context the meaning in table 2 is very important to do where the grouping of each data from the business name obtained and each attribute along with each value of each attribute is very important to be formed into a one-valued context table before entering the next analysis stage.

3.3.2 Formal Concepts

In the formal concept described in the formula (G, M, W, I) in the formal context, states that the concept usually uses the formula (A, B), it can be called a concept if the object in A has attributes in B. So in this formal concept all business names in table 3 one valued context must have each of the attributes, or in other words each attribute must be owned by the name of the business as the object, and the business that has The similarity of attributes with other businesses is referred to as a concept.

A concept is declared if all objects have each attribute. And if there is an attribute that is not owned by the business name as the object, then this attribute will not be included in the next analysis stage in data processing. In Table 3 is a concept table made in this study which aims to describe the relationship or concept between business names as objects and attributes, and explain some of the attributes most chosen by several business names as objects.

Table 2. Concepts formed from the context

No	Concept	Amount	
		G	M
1	Walet H, Ud.Azhari/Kuliner, Kopi ELB And Kuliner, Sasambo RembitanS F, Odean Songket <i>Fashion</i> , Donat <i>Fashion</i> , Modus Kartini Muda, P-Com <i>Education</i> , Ganesa <i>Opration</i> , Arkan Motor, Cahaya Motor, Duta Ban Otomotif, Mutiara Komputer, Lombok IT .Com, J.Prima Jaya, Almina <i>Travel</i> , Perjalanan Wisata, Asha Ramas Anugrah, UD.Mekar, Ud.Terang Terus, Yulia Pottery, Nada Gadai, Print Dan Percetakan, Agung Printing,. (KTp)	26	1
2	Walet H, Walet J, Ternak Walet, Ud.Azhari/Kuliner, Kopi ELB Kuliner, Sasambo RembitanS,F, Odean Songket <i>Fashion</i> , Modus Kartini Muda, P-Com <i>Education</i> , Arkan Motor, Cahaya Motor, Mutiara Komputer, J.Prima Jaya, Perjalanan Wisata, UD. B. Bersama, Budi Rahman Toko, Ud.Terang Terus, Yulia Pottery, Nada Gadai/Jasa, Print Dan Percetakan, Alfa Print Digital,. (LKc)	23	1
3	Walet.H, Ternak Walet, Aldaizi Kuliner,Ud. Azhari/Kuliner, Kopi ELB Kuliner, Sasambo RembitanS,F, Odean Songket <i>Fashion</i> , Donat <i>Fashion</i> , Modus Kartini Muda, P-Com <i>Education</i> , Ganesa <i>Opration</i> , Cahaya Motor, Duta Ban Otomotif, Lombok IT .Com, J. Prima Jaya, Perjalanan Wisata, Almina Travel, Asha Ramas Anugrah, Ud.Terang Terus, Yulia Pottery, Print Dan Percetakan, Agung Printing, Alfa Print Digital,. (PPmds)	24	1
4	Walet J,Aldaizi/Kuliner, Ud.Azhari/Kuliner, Sasambo RembitanS,F, Odean Songket <i>Fashion</i> , P-Com <i>Education</i> , Ganesa <i>Opration</i> , Cahaya Motor, Mutiara Komputer, Lombok IT .Com, J. Prima Jaya, Almina Travel, Perjalanan Wisata, Asha Ramas Anugrah, UD. Mekar, Budi Rahman Toko, Ud.Terang Terus, Yulia Pottery, Nada Gadai/Jasa, Print Dan Percetakan, Agung Printing, Alfa Print Digital,. (MDP)	22	1
5	Walet H, Aldaizi/Kuliner, Ud.Azhari/Kuliner, Kopi ELB Kuliner, Sasambo RembitanS,F, Odean Songket <i>Fashion</i> , Donat <i>Fashion</i> , Modus Kartini Muda, P-Com <i>Education</i> , Ganesa <i>Opration</i> , Cahaya Motor, Duta Ban Otomotif, Lombok IT .Com, J. Prima Jaya, Almina <i>Travel</i> , Perjalanan Wisata, Asha Ramas Anugrah, Budi Rahman Toko, Ud.Terang Terus, Yulia Pottery, Nada Gadai/Jasa, Print Dan Percetakan, Agung Printing, Alfa Print Digital,. (TBP)	24	1
6	Walet H, Walet J, Ternak Walet, Kopi ELB Kuliner, Ud. Azhari/Kuliner, Sasambo RembitanS,F, Arkan Motor, Duta Ban Otomotif, UD. Mekar, Budi Rahman Toko, Yulia Pottery, Print Dan Percetakan, Agung Printing, Alfa Print Digital,. (CSb), Aldaizi/Kuliner, Odean Songket <i>Fashion</i> , Donat <i>Fashion</i> , Modus Kartini Muda, P-Com <i>Education</i> , Ganesa <i>Opration</i> , Mutiara Komputer, Lombok IT .Com, J. Prima Jaya, Almina <i>Travel</i> , Asha Ramas Anugrah, UD. B. Bersama, Ud.Terang Terus,. (CSsb)	28	1
7	Aldaizi/Kuliner, Ternak Walet, Walet J, Walet H, Kopi ELB Kuliner, Odean Songket/ <i>Fashion</i> , P-Com <i>Education</i> , Ganesa <i>Opration</i> , Arkan Motor, Duta Ban Otomotif, Mutiara Komputer, J. Prima Jaya, Almina <i>Travel</i> , UD. Mekar, UD. B. Bersama, Budi Rahman Toko, Ud.Terang Terus, Yulia Pottery, Nada Gadai/Jasa, Print Dan Percetakan, Agung Printing, Alfa Print Digital,. (APprs)	23	1
8	Aldaizi/Kuliner, Ternak Walet, Walet H, Kopi ELB Kuliner, Odean Songket <i>Fashion</i> , Donat <i>Fashion</i> , P-Com <i>Education</i> , Arkan Motor, Duta Ban Otomotif, Mutiara Komputer, J. Prima Jaya, UD. Mekar, UD. B. Bersama, Budi Rahman Toko, Ud.Terang Terus, Nada Gadai/Jasa, Print Dan Percetakan, Alfa Print Digital, Almina <i>Travel</i> , Perjalanan Wisata, Asha Ramas Anugrah, Lombok IT .Com, Cahaya Motor, Modus Kartini Muda, SasamboRembitanS,F, Ud. Azhari/Kuliner,. (MUB)	27	1

Table 2 is a concept table formed from the formal context, which explains some of the attributes most chosen by Central Lombok SMEs based on the form context table. several business names as objects, such as number 1 in table 2, explains the number of G as a symbol of the object or business name, of which there are 26 business names that choose the same 1 attribute, with M as the symbol of the attribute, namely the attribute of teamwork is assessed important (KTP), and so is number 2 in table 2, there are a total of 23 business names that choose the same attribute, namely sufficient liquidity (LKc), and

number 3 explains that there are 24 objects or business names that choose 1 the same attribute that is sales promotion with social media (PPMDS), in table number 4 there are 22 objects that choose the same business name, namely providing discounts for customers (MDP), in number 5 explains as many as 24 objects that choose the same attribute, namely reciprocity to customers (TBP).), from number 6 in the table describes 28 objects that choose the same attribute even though the values chosen are different, namely customer service is considered good (CSb) and customer service is considered very good (CSsb), and number 7 describes 23 objects or business names that choose The first attribute is the same, namely the origin of the company is considered personal (APprs), and the last one in number 8 in the table describes as many as 27 objects or business names that choose the same attribute, namely saving money in the bank (MUB), these eight attributes describe the attributes that Mostly chosen by several business names, in general, from this formal concept, it is only looking for the formation of a concept between attributes and objects, and if there are objects or attributes that do not exist. have a relationship or some attributes are not selected by the object, it will not be included in the next analysis, but in this study all attributes are selected or owned by the name of the business or object.

3.3.3 Concept Lattice

Concept lattices are formed from a formal context to a formal concept. From the data that has been analyzed in the form of a concept through the formal concept stage, then it will be made in the form of a set concept from the formulas $(A1, B1)$ and $(A2, B2) / (A1, B1) (A2, B2)$ in the concept lattices stage to find out the factors that influence the success of Central Lombok MSMEs, and the following are two pictures of concept lattices which can be seen in Figures 1 concept lattices 1 which are data from Central Lombok MSME respondents after being analyzed with a formal context and formal concept which is formed into set of lattices.

The formation of these two lattice sets in aims to simplify this research because the data obtained is fairly large from 30 respondents of Central Lombok SMEs and consists of 36 attributes and their values, so that two sets of lattices are formed as shown in Figure 1.

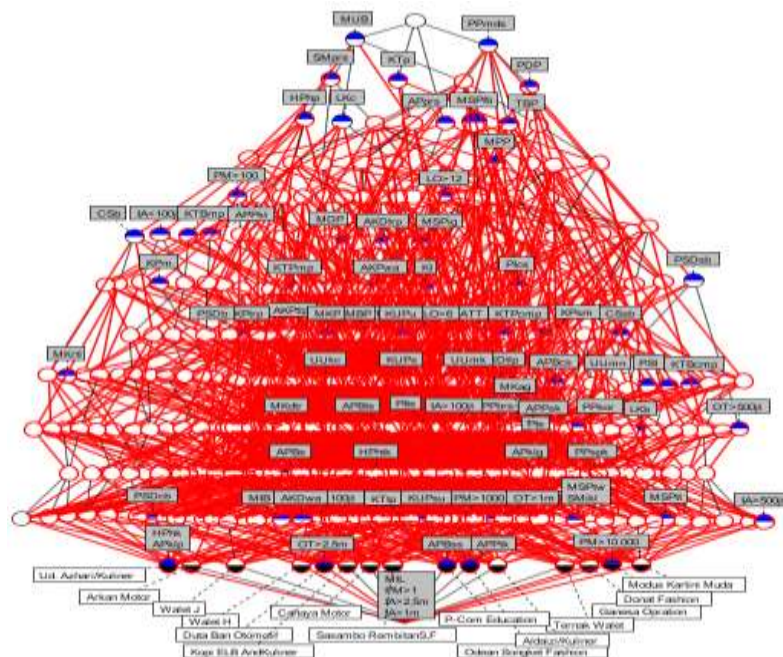


Figure 1. concept lattices

In Figure 1 concept lattices 1, it is a set of lattices consisting of fifteen business names analyzed in this figure, which are taken from business name number 1 to business name number 15, such as the number and sequence of business names that have been listed in table 1 and table 2 the purpose of data processing on the concept of lattices as many as 15 business names is to facilitate research, because the data and attributes used are fairly large and the software used, namely concept explorer, is less efficient in displaying lattices if processing data is entered in large quantities at once, and because it also FCA research is a method that is not suitable for large-scale data processing, with split processing as shown in Figure 1 concept lattices 1.

Figure 1 also explains the results of 15 business names analyzed from business names number 1 to number 15, which explains the 15 business names in the circle of the lowest lattice node showing as objects, and each attribute node being above the object, and in the figure 1 shows 2 attributes located at the top lattice node, including sales promotions with social media value (PPmds) as many valued attributes, and saving money in the bank (MUB) as one valued attributes, these two attributes show as attributes that are in the node the top most chosen of the fifteen objects in Figure 1, but this cannot be categorized as several factors that influence the success of MSMEs in Central Lombok district, because they will still go through several stages of analysis to find convincing results.

3.3.4 Iceberg Concept Lattice

From the data shown in the lattice concept images 1 shows the discovery of knowledge in big data in the form of lattice sets. After each lattice has a percentage extent then a support limit of 67% and above will be applied as a support point limit for the lattice. Limitation of support points to 67% on lattice, aims by looking at the function of the iceberg concept lattice as a data filter to find intents or attributes that appear frequently, by looking for joined lattice, because concept lattice has decreased support repeatedly, besides that In this study, the limit of support points is up to 67%, because in the lattice concept there are less lattice finds that join under a minimum support of 67%, and by having a lot of data, two sets of lattice have to be made as shown in Figures 1 so that with a support point of 67% it will be makes it easier to find joined lattices and increases confidence in the results found by implementing 67% support for filtering concept lattices.

In the analysis using the Iceberg concept lattices, it was found that several lattice joined with the intent that appears most often which is obtained from the percentage of extents, after going through the filtering stage of the concept lattice which is an iceberg concept lattice with a minimum support of 67%.

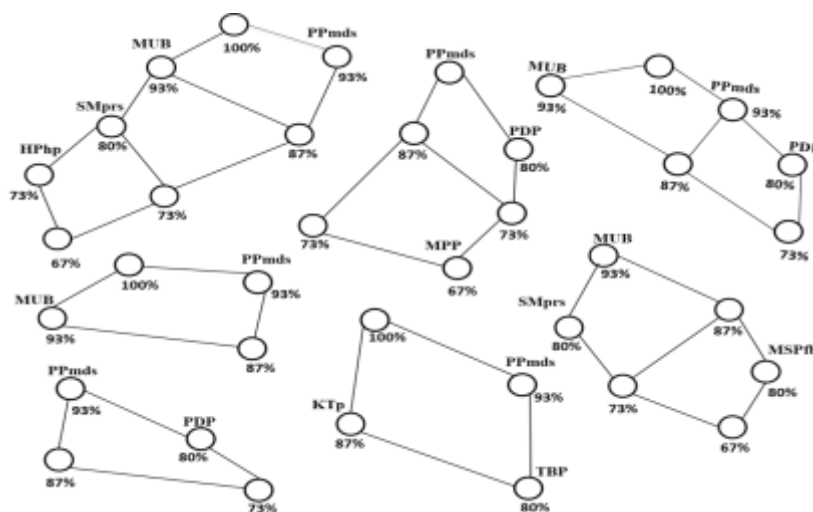


Figure 2. Iceberg concept lattice with a minimum of 67% support.

Figure 2 is an illustration of the Iceberg concept lattice by applying a minimum of 67% support from the two lattice attices are found.

Table 4. Frequently appearing intents from iceberg concept lattices

No	Extent area	Intent / Sub Factor
1	93%	Provide Discounts For Customers (MDP)
2	93%	Sales Promotion On Social Media (PPmds)
3	93% and 87%	Saving Money In The Bank (MUB)
4	87%	Teamwork is Important (KTp)
5	80% and 73%	Sources of Personal Capital (SMprs)
6	80%	Origin Company Personal / Owned (APprs)
7	80%	Feedback to Customers (TBP)
8	80%	Business Training and Development (PDP)
9	80%	Sales Social Media With Facebook (MSPfb)
10	80%	Business Liquidity is Sufficient (LKc)
11	73%	Product Prices at Market Prices (HPhp)
12	73%	Customer Service is considered Good (CSb)
13	67%	Participate in Government Training (MPP)

Table 3 is a summary of the results of intents that often appear found in namely a description of 15 iceberg concept lattices, explaining 13 intents or factors that need to be considered in entrepreneurship that can affect business success, based on the values or choices of 30 Central Lombok UMKM respondents, and in table 3 it shows that each intent has its own extent point based on two sets of concept lattice, and there are also two intents that have different extents, different extents are formed because they come from two different sets of lattice such as Saving Money in the Bank (MUB).) has two extents, namely 93% and 87%, and Personal Capital Sources (SMprs) also has two extents, namely 80% and 73%, the extent of each intent on the results of the analysis of the Iceberg concept lattice not only explains the percentage of intent, but also explains the existence or the location of the intent to a lattice, as shown in table 3 also tel ah is listed in the column where the extent is, to make it easier to see the extent of each intent.

Table 3 explains that Giving Discounts to Customers (MDP), Sales Promotions on Social Media (PPmds) and Saving Money at the Bank (MUB) are at the same extent, namely 93% of the two concept lattice and also in the table explaining Saving Money in Banks (MUB) and Teamwork Valued Important (KTP) are at the same extent, namely 87%, and on Personal Capital Sources (SMprs), Personal Company Origins (APprs), Reciprocity To Customers (TBP), Business Training and Development (PDP), Sales Social Media with Facebook (MSPfb), and also Business Liquidity Assessed Sufficient (LKc) are at the same extent point of 80%, and then there are Personal Capital Sources (SMPrs), Product Prices at Market Prices (HPhp), and Good Customer Service (CSb) are at the same extent, namely 73%, and finally, there is only one intent that has an extent of 67%, namely Participating in Training From Government (MPP). The thirteen intent results from this study as in table 3 describe the most important characteristics influencing the success of MSMEs in Central Lombok district based on 30 Central Lombok MSME respondents, and out of the 13 intent results found in the iceberg concept lattice are considered not so important that affect success business for Central Lombok MSME respondents, because filtering uses the iceberg concept lattice is the most important priority as a result of research, thus finding thirteen intents or the most important factors to pay attention to in business success for MSMEs in Central Lombok district, and outside the three The twelve intent results found with the iceberg concept lattices are twenty-three factors that are not so important for business success in Central Lombok district.

4. CONCLUSION

The data that has been obtained from thirty Central Lombok MSME respondents consists of 36 sub-factors that have been selected by the respondents, 13 intents or factors were found that are considered important as an influence on the success of MSMEs in Central Lombok district, where 13 results of the analysis in this study include Giving Discounts For Customers, Promotion of Sales on Social Media, Saving Money in Banks, Teamwork is Considered Important, Source of Capital is considered Personal, Company Origin is considered Personal, Reciprocity to Customers, Training and Business Development, Social Media Sales with Facebook, Business Liquidity is Considered Adequate, Product Prices with Market Prices, Customer Service is considered Good, and finally Participated in Training from agencies or the Government, and these results were found using the four stages of the FCA method, starting from the formal context, formal concept, concept lattice and finally iceberg concept lattice, to find thirteen intents or the research results factor is carried out by applying a minimum support point of 67% which aims to find a lattice that joins filtering intent which allows a fairly low level of trust to emerge, and a description of the results of the research is carried out, so that the results of the study are found.

There are thirteen factors which influence the success of MSMEs in Central Lombok district, thirteen research results found to be applicable to each scale of both micro, small and medium enterprises, which is where saving money in a bank will really help micro-enterprises when facing problems in their business as well Sales Promotion on Social Media is very important for micro businesses to pay attention to in introducing their products to the outside world and includes attending training from agencies or the government, which will be very useful in increasing insight and business experience for the micro business sector, as well as the small business Sales Promotion on Social Media is very important to pay attention to in business, namely Social Media Sales with Facebook which is still quite high which is used in marketing businesses in Central Lombok district, and includes attending training from agencies or the government just like micro businesses will be very useful in increasing insight and business experience, especially in improving business quality, and for medium-sized businesses will be very important in implementing Business Training and Development in improving business performance as well as for business actors who have employees or employees, and also good Customer Service is very important for business actors, especially medium-sized businesses that interact more with consumers, as well as the importance of Feedback to Customers and Business Liquidity or the ability of businesses to pay for every business need..

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