

RE, Ramel Yanuarta; Elfindri; Muharja, Fajri; Games, Donard

Article

The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia

Cogent Business & Management

Provided in Cooperation with:

Taylor & Francis Group

Suggested Citation: RE, Ramel Yanuarta; Elfindri; Muharja, Fajri; Games, Donard (2023) : The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 10, Iss. 2, pp. 1-29, <https://doi.org/10.1080/23311975.2023.2212498>

This Version is available at:

<https://hdl.handle.net/10419/294443>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia

Ramel Yanuarta RE, Elfindri, Fajri Muharja & Donard Games

To cite this article: Ramel Yanuarta RE, Elfindri, Fajri Muharja & Donard Games (2023) The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia, Cogent Business & Management, 10:2, 2212498, DOI: [10.1080/23311975.2023.2212498](https://doi.org/10.1080/23311975.2023.2212498)

To link to this article: <https://doi.org/10.1080/23311975.2023.2212498>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 21 May 2023.



[Submit your article to this journal](#)



Article views: 2011



[View related articles](#)



[View Crossmark data](#)



Received: 13 January 2022
Accepted: 06 May 2023

*Corresponding author: Ramel Yanuarta RE, Department of Management, Universitas Negeri Padang, Padang, Indonesia
E-mail: ramel.yanuarta@fe.unp.ac.id

Reviewing editor:
David McMillan, University of Stirling, United Kingdom

Additional information is available at the end of the article

MANAGEMENT | RESEARCH ARTICLE

The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia

Ramel Yanuarta RE^{1*}, Elfindri², Fajri Muharja² and Donard Games³

Abstract: This study examines the effect of household interference on business returns and household economic welfare of Micro and Small Enterprises (MSEs). This study employs a quantile regression method involving 7,020 households as the sample. The data are taken from the Indonesian Family Life Survey (IFLS) in two waves (2007 and 2014) to show the returns on microbusinesses. Variables such as unpaid workers, direct consumption of business revenue, and home-based businesses affect profits and household expenditures per capita. This study shows an overlap between MSEs and household business activities in emerging economies. This is contrary to most previous studies on MSEs that have separated businesses and households, thus MSEs' performance could not be properly defined and analyzed. Besides, most Indonesian government policies and efforts only address business activities driven by opportunity, and few accommodate business activities



Ramel Yanuarta RE

ABOUT THE AUTHORS

Ramel Yanuarta RE is an Assistant Professor and researcher in the Department of Management, Universitas Negeri Padang, Padang, Indonesia. His research interests include micro and small enterprise development, microfinance, and capital markets.

Elfindri is a Professor of Economics and researcher in the Department of Economics, Universitas Andalas, Padang, Indonesia. His research interests include the economics of health and education, human resources economics, and social experiments.

Fajri Muharja is an Assistant Professor and researcher at the Department of Economics, Universitas Andalas, Padang, Indonesia. His research interests include development planning, economics of natural disasters, growth theory and empirics, applied econometrics, and political economics.

Donard Games is an Assistant Professor and researcher at the Department of Management, Universitas Andalas, Padang, Indonesia. His research interests include entrepreneurship, marketing, leadership, social change, and public policy.

PUBLIC INTEREST STATEMENT

The role of micro and small enterprises has been identified not only as an entrepreneurial activity, but also as a strategy for poor households to fulfill their needs. As part of the household activities, there is an overlap between MSE and household activities. This misunderstanding misleads our perceptions, makes the data analysis biased, creates debate, and influences policy-making. Previously, we assumed that all forms of MSEs were business entities with similar characteristics for many years. However, some of them differ in several ways. Our study examines the effect of household interference on business returns and household economic welfare of Micro and Small Enterprises (MSEs). We provide clear evidence to policymakers that returns to microbusinesses should be based on household welfare effects because they provide a livelihood and a means to address economic vulnerabilities, not simply taking advantage of an opportunity.

driven by necessity. This research can provide clear evidence to policymakers who tend to adopt a “one size fits all” approach that returns to microbusinesses should be based on household welfare effects as well. This is because microbusinesses provide a livelihood and a means to address economic vulnerabilities, not simply taking advantage of an opportunity.

Subjects: South East Asian Business; Entrepreneurship; Small Business Management; Social Entrepreneurship

Keywords: micro and small enterprises; return; economic welfare; household interference; the Indonesian family life survey; quantile regression

JEL classification: D13; O17; P31; P36

1. Introduction

Micro and Small Enterprises (MSEs) make essential contribution to the economy of many countries. However, there has always been debate regarding the roles, characteristics, and sustainability of MSEs (Rambe & Mosweunyane, 2017; Tambunan, 2019; Vial & Hanoteau, 2015). MSEs play an important role in job creation and income generation, and address issues of poverty and inequality (Daniels & Mead, 1998; Gindling & Newhouse, 2014). Even together with charity-based Islamic microfinance schemes, MSEs reduce the impact of the COVID-19 pandemic on owners' households (Yumna et al., 2021). However, the majority of MSEs also encounter the problem of low productivity, and many of them find it difficult to expand and maintain their businesses (Banerjee et al., 2015; Fiseha & Oyelana, 2015; Hermes & Lensink, 2011; Raghuvanshi et al., 2017).

Although MSEs in developing countries have been documented in many studies, there are some misunderstandings in their findings. These misunderstandings caused misleading perceptions in the data analysis, created debates, and influenced policymaking. For example, we have assumed for many years that all forms of SMEs are business entities with similar characteristics. In fact, some forms are different in many ways (ADB, 1997; Mohiuddin et al., 2020). Another example is that previous studies use the terms MSEs and SMEs interchangeably (Edusah, 2013), but in reality, they have different strategic approaches, perspectives, and policies (Shafi et al., 2020). If a study had explained the concept of MSE return incorrectly, it would have found that MSEs were not profitable and could not be promoted. In this case, it failed to define the motivational context and heterogeneity of MSEs (Vial & Hanoteau, 2015). Conceptually, not all MSEs are opportunity-driven businesses with innovation and proactive principles in taking profitable business opportunities for households. Many households with poor assets, fund, or access to the employment sector have started to run businesses because they merely need money and meet their basic needs, or known as necessity-driven business (Brünjes & Diez, 2013; de Vries et al., 2020; Fairlie & Fossen, 2017; Williams & Williams, 2014). For this reason, it is important to define the background and contextual factors of MSEs when conducting studies on them.

Failure of MSE to grow and survive cannot be analyzed simply from business factors. Businesses run by poor households can have many influencing factors, because household matters overlap with the business. For example, household interference can occur in asset ownership and utilization, business management and decision making, allocation of savings and sources of business financing, and household consumption (Tipple, 2005). As a result, MSEs' profits could not be recorded, except that the remaining cash became net revenue.

This study examines the effect of household interference that overlaps with business and affects net revenue and household MSEs' economic welfare. The results are expected to provide a better understanding of MSEs in developing countries, where interference is really typical. We use the effect of household interference on returns to micro-businesses to examine their different

characteristics. More specifically, we focus on a broader perspective, using firm performance (Tehseen & Anderson, 2020) and household economic welfare (Vial & Hanoteau, 2015) as proxies for returns to micro-businesses.

This study expands Vial and Hanoteau's (2015) returns to micro-business measures by combining business returns and household welfare returns to microbusiness measures by combining business returns and household welfare. The inclusion of performance measures on return-to-microbusiness indicators in this study covers households' motives to run business. This study uses the business conceptualization proposed by Stafford et al. (1999) to assess the effect of household interference on microbusiness returns. In this concept, MSEs are considered needs-based entrepreneurs, where their businesses and households are inseparable. However, previous studies have not observed an overlap between businesses and households, which is clearly the case. By using the approach proposed by Stafford et al. (1999), we hope to address the weaknesses of previous studies.

This research offers novel insights by revealing the influence of household interference variables on micro-business performance and MSEs. As the need and opportunity motives are not observable, the influence of household interference on MSE returns reveals these motives. Moradi et al. (2020) argue that MSEs and poverty alleviation have been highly explored in the literature, but neglected in poverty-related contexts. They found that poor areas and communities were affected by special conditions, which were different from those observed in ordinary or rich communities. Therefore, they recommend adopting specific definitions, approaches, and strategies when dealing with entrepreneurship in a poor environment.

Entrepreneurs need more entrepreneurial skills to start their businesses based on the recognition of entrepreneurial opportunities rather than the choice of needs (Rezaei et al., 2017). We use two-wave Indonesian Family Life Survey (IFLS) data, which are 2007 and 2014 to show company performance and household welfare as returns on micro-business. We examine the effect of household interference variables on MSE returns using the quantile regression method. This method solves the problem of data heterogeneity revealed in descriptive statistics.

This study uses Indonesia as the context for an emerging market economy. This is the right choice because Indonesia has 64 million business entities, from microbusiness entities to MSEs. Stakeholders and policymakers continue to campaign for the importance of ensuring that micro-businesses can be transformed into small businesses and even medium-sized enterprises. However, micro-enterprises do not appear to be profitable for economic growth because expanding their businesses is almost impossible. For households with poor access to the employment sector and binding constraints on the number of hours of paid work, self-employment may be the only solution for household members to increase their labor supply and income.

Indonesia, as the 16th largest country in Gross Domestic Product (GDP), is the largest economy in Southeast Asia but is still classified as a lower-middle-income country with a GDP per capita of \$3,894 by the World Bank in 2020. With a very large population, the majority of the Indian business sector is micro- and small-scale, and employs about half the active population. Indonesia is a developing country and specifically represents studies related to MSE worldwide.

According to a publication by the Ministry of Cooperatives and SMEs, the number of Micro, Small and Medium Enterprises (MSMEs) in Indonesia in 2019 was 65,465,496 units, of which 98.7% were micro and small businesses. From 2010, this figure has continued to increase by more than two percent per year. However, when compared to the productivity level of business units, a large number of MSEs is not followed by the optimal potential for added economic value. In addition, Micro- and small-scale businesses have a productivity level of approximately USD 0.004 million and USD 0.128 million per business unit, respectively, which is very low compared to medium and large businesses (USD 1.828 million/unit and USD 62.394 million/unit, respectively).

In terms of workforce, the productivity of micro- and small-scale businesses is also smaller, about USD 0.002 million and USD 0.017 million per worker compared to medium- and large-sized businesses, USD 0.032 million and USD 0.092 million per worker. This inequality not only occurs in Indonesia, but also in many countries worldwide.

If we look at the data from the Indonesia Family Life Surveys (IFLS), apart from productivity problems, these micro and small-scale businesses have faced a high failure rate. Survey data show that of the 4,401 micro- and small-scale businesses listed as the main household businesses in 2000 (IFLS-3), only 1,136 businesses survived until 2007 (IFLS-4). Furthermore, out of the 4,919 main household businesses in 2007, only 1,237 businesses survived in 2014 (IFLS-5). Overall, during the longer period of 2000 (IFLS-3), only 434 household businesses survived until 2014 (IFLS-4).

This research makes a positive contribution to the body of knowledge and provides clear evidence for policymakers who tend to adopt a “one size fits all” approach. We follow Vial and Hanoteau (2015) to estimate the influence of household interference on returns to micro-businesses. They argue that returns to micro-businesses should be based on household welfare effects because they provide both livelihood and a means to address economic vulnerability. ADB (1997) explicitly assumes that MSEs or micro-businesses are needs-driven. However, many policies and efforts are still aimed at promoting micro-businesses, which are only suitable for opportunity-driven activities. Policymakers argue that their efforts provide more job opportunities and boost economic growth.

The remainder of this paper is organized as follows. In the next section, we review the literature related to Sustainability Family Business Theory and the role of household interference in MSEs. The next section presents the methods used to explain the data, methods, and model specifications. The next section presents summary statistics, empirical results, and discussions, followed by conclusions, limitations, and ideas for future research.

2. Literature review and hypotheses development

2.1. Sustainability family business theory

The Sustainability Family Business Theory was conceptually developed by Stafford et al. (1999), and was then empirically studied by Danes et al. (2008) and Olson et al. (2003). According to this theory, there is an overlap between household and business as an equal system that moves together towards sustainability.

Each business and household have its resources, constraints, processes, and objectives. The more time spent on a household in business, the higher the expenditure of a household on business, and/or the more the business’s net revenue used directly for household consumption, the greater the overlap between business and household activities. Thus, the resources, obstacles, processes, and goals of both businesses and households will have a horizontal influence on the process and goals of each unit and a vertical influence on each other between businesses and households. This generally occurs in MSEs, whose activities are motivated by efforts to earn a living (necessity-driven activities). The more MSE moves towards opportunity-driven activities, the smaller is the level of overlap.

Because the return model of MSE is a system model, a household’s effort is viewed as an effort to achieve homeostasis. When one part of a business changes, it may affect other parts at the same time. Therefore, households will also take further action to respond to these changes to maintain business and household sustainability, and vice versa (Danes et al., 2008; Gudmunson & Danes, 2013; Stafford et al., 1999).

Due to the overlapping between businesses and households, households are not considered as an irrational unit in the MSE return model but as a rational and independent system unit. Thus, various household characteristics affect businesses. Therefore, as a business entity, MSE becomes unique and different from other business management because of its household characteristics rather than its business characteristics.

As an interrelated system, the MSE return model must consider business sustainability as a form of sustainability or survival of businesses and households. However, because they use different systems, their growth may be different. The MSE return model can distinguish households that succeed in achieving growth in both business and household aspects from those that succeed in one aspect. The business activities carried out by households are a source of livelihood that will maintain and possibly improve their economic welfare. As mentioned in the previous section, household business activities use assets, activities, and access to life produced or owned by household members.

MSE and business activities conducted by households are complementary sources of livelihood. Both parties invest their respective assets, carry out activities, and have access to income that determines the living gained by an individual or household (Verrest, 2013) to increase or maintain economic prosperity. Previous literature on MSE returns only considers revenues at the level of effort (Hamilton, 2000; Mandelman & Montes-Rojas, 2009). With shared access, MSE return analysis must look broadly not only from the aspect of business revenues but also from the aspect of household economic welfare, for example, by using household revenue indicators.

Therefore, to see the MSE returns within a broad scope based on a sustainable household/family business model, this study uses two return indicators to describe the MSE returns: net business profit and household expenditure per capita. With imperfect market characteristics due to household interferences, such as asset ownership and utilization, business management and decision-making, allocation of savings and sources of business financing, and household consumption, the overall research model is explained by the model of Sustainable Family Business Theory.

2.2. MSE and the role of household interference

Entrepreneurship is a solution to poverty (Alvarez & Barney, 2014; Bajde, 2013; Bruton et al., 2015; Najafizada & Cohen, 2017), but it is necessary to bear in mind that the entrepreneurial process in a poor community may occur differently than in a well-off community. As discussed by some researchers, people in poor communities follow several explicit and implicit rules, not officially written anywhere, which are called the “culture of poverty” (Liñán et al., 2013). Thus, different aspects of entrepreneurship may be differently approached when examining its dimensions and factors in a poverty-dominant setting.

The overall content of the available literature indicates that poor areas and communities are affected by special conditions, which are different from the conditions observed in an ordinary or well-off community. Hence, they recommend adopting special definitions, approaches, and strategies when dealing with entrepreneurship in poor settings.

Due to poverty or unemployment, households are pushed to perform all kinds of activities that can generate income to survive (ADB, 1997; Lateh et al., 2017; Oyelana & Adu, 2015). MSE is the income portfolio of households that meet their consumption. MSE and households are interrelated in many ways, such as in asset ownership, management and decisions, saving and financing, and production and consumption (Tipple, 2005). For example, it is apparent that the business owner, who is a household member, is also the manager of the MSE, making it difficult to separate the authority between the two.

As a source of livelihood and a means of addressing economic vulnerability for households (Verrest, 2013), MSEs aim to improve household economic welfare as well as sustainability. This

only occurs in households with access to the necessary financial, human, and social capital (Nichter & Goldmark, 2009). In fact, most MSEs are owned by poor or unemployed households; therefore, interference between business and household activities commonly occurs. A broader approach is needed to cover household economic welfare (Vial & Hanoteau, 2015) and firm performance (Tehseen & Anderson, 2020) to understand and assess MSE objectives and returns (Carter, 2011; Verrest, 2013), rather than simply viewing them as separate entities.

In agency theory, the concentration of this authority should be an incentive for households and businesses. Given that the owner is also the manager of the MSE, the agency costs of managing the MSE are not a problem in this type of enterprise and should increase attitudes toward stewardship, thereby building firm capabilities (Jensen & Meckling, 1976). However, one of the main problems hindering the growth of entrepreneurship in poor communities is the fact that poor people are usually faced with some fundamental structural problems, such as a lack of financial resources, education, and business-related skills, when they want to start their own businesses (Chun & Watanabe, 2011; Garba, 2010; Valdivia, 2015). Thus, they have to make harder efforts to overcome such obstacles than individuals with middle or high socioeconomic status.

Under this condition, MSE entrepreneurs have limited rationality in making decisions (bounded rationality). In this view, the decision-maker acts as a satisfier, seeking a solution that satisfies her/his needs rather than an optimal solution. Therefore, MSE entrepreneurs do not carry out a full cost-benefit analysis to determine the optimal decision but instead choose the option that meets the adequacy criteria (Noviarto & Samputra, 2021).

Even in worse conditions, managers can have unmatched control, so that they can start abusing their power by taking resources away from the business (Claessens & Fan, 2002). Households heavily intervene, especially in MSEs, which are driven by needs. As such, MSEs have become vulnerable, characterized by extraordinary dividend payouts (DeAngelo & DeAngelo, 2000), particularly Micro-businesses and SMEs owned by poor and economically vulnerable households.

This study expands Vial and Hanoteau's (2015) return to micro-business measures by including firm performance measures, such as assets and revenue. The inclusion of performance measures on return to micro-business indicators in this study covers both starting business motivations. Furthermore, the estimated role of household interference on household welfare and firm performance reveals the micro-business starting motivation.

By applying agency theory to micro-enterprises, owners and managers no longer face the problem of cost monitoring. However, family enterprises that involve family members as unpaid workers in a payroll mechanism (contractual bond) have lower control over employees. Unclear incentive mechanisms negatively impact business performance and household consumption as proxies for return to micro-enterprises. However, proper incentive mechanisms for unpaid family workers positively impact business performance. According to Stafford et al. (1999, 2013), household interference that supports family businesses positively affects business performance. One type of support from family members is a company workforce with a long-term incentive mechanism.

Based on the above theoretical argument (Stafford et al., 1999; Tipple, 2005), if a micro-business is necessity-driven, unpaid family workers are a burden for the business and negatively impact the return to micro-enterprises. On the other hand, if it is opportunity-driven, the impact will be positive on business development and household consumption. Family members involved in managing the family business can earn income from paid jobs in the labor market but choose to help their family businesses.

Interference between businesses and households also occurs in the form of extraordinary dividend payouts (DeAngelo & DeAngelo, 2000) by business owners. This characteristic is reflected

in the behavior of micro-businesses that do not separate the company's financial records from that of households. The total amount of business revenue is also the household income to be consumed and saved, especially in micro-businesses driven by necessity. These micro-businesses have different characteristics from those with opportunity-driven motives. In businesses with an opportunity-driven motive, finance and household consumption negatively impact budget allocation because household consumption is sacrificed to support business development. However, in businesses with a necessity-driven motive, the impact of household interference on the financial records of enterprises and households is negative for enterprise performance but positive for household consumption.

One of the primary objectives of micro-entrepreneurship is to diversify the sources of household income and augment consumption and savings (Banerjee & Duflo, 2011). In addition, micro-entrepreneurship diversifies households' professional activities and reduces risk (Ferreira & Lanjouw, 2001; Verrest, 2013). However, this option is only available to households with access to necessary financial, human, and social capital (Nichter & Goldmark, 2009). To enhance their economic status, households allocate resources in terms of time, capital, and skills to start a business, including utilizing home facilities as a place of business.

From a policy perspective, it is important to assess these motives when implementing policy options. Policies to scale up microbusiness and business development programs are only relevant to opportunity-driven microbusinesses. A household invests and knows the risk and potential gain from starting a micro-business. According to the sustainability family business theory (SFBT), the family and spouse's support while starting a business is an important variable in business performance, but household interference in business negatively affects firm performance (Olson et al., 2003; Yang & Danes, 2015).

Higher household interference should harm an opportunity-driven microbusiness, and only competent family members should be involved in the family business. Moreover, necessity-driven micro-business would not respond to scaling up micro-business policies. They would fail to expand and grow, but have to survive, as it is an important tool for policymakers to fight poverty within the poverty graduation program. The appropriate policy option is to help this category of micro-businesses survive, not grow and expand. This category of microbusiness is household livelihood activity, not household income expansion activity. Since it is a livelihood activity, household members are constrained to access the paid labor market. This type of micro-business is characterized by a low return to micro-businesses and high family involvement. This study analyzes the effect of household interference variables on returns to micro-businesses. Before the analysis, we elaborate on the dynamics of the SME's interference characteristics concerning its returns. According to SFBT, family inference in a family firm affects business resilience and performance (Olson et al., 2003; Yang & Danes, 2015).

2.3. MSE returns

Krasniqi and Branch (2020) state that a widely recognized business performance assessment is measured by business growth, profitability, or both (Lee & Tsang, 2001). Others measure business performance using employee growth or sales/profits (Chandler & Hanks, 1993). However, there is no clear consensus on the most appropriate performance measures of small enterprise (Tunberg & Anderson, 2020). Nevertheless, Wiklund (1999) argued that growth is an easily accessible performance indicator.

However, there is much debate regarding the performance of MSEs. Some experts argue that SMEs provide benefits, whereas others do not. Not all MSEs are relationship oriented. Many consider MSEs the last option to meet their needs (Banerjee & Duflo, 2011; Banerjee et al., 2015). In this sense, households and MSE are interrelated in terms of ownership, management and decisions, savings and financing, and production and consumption (Tipple, 2005).

Micro and small enterprises were used as livelihood strategies. They serve as a complement to paid work, which increases the use of labor and household revenues (Moser, 1998) and as a source of non-market transactions that complement the consumption and acquisition of durable goods (Floro & Bali Swain, 2013; Verrest, 2013). Moreover, they are also used as a means of diversifying professional household activities and reducing risks (Ferreira & Lanjouw, 2001; Verrest, 2013), providing livelihoods and addressing economic vulnerabilities (Verrest, 2013), micro-entrepreneurship is likely to improve household economic welfare. However, this option is only available to households with access to the necessary financial, human, and social capital (Nichter & Goldmark, 2009).

In developing countries, it is common for poor households to address vulnerabilities by accumulating physical assets such as houses, land, animals, and plant assets, which are used to obtain food, vehicles, household appliances, and furniture (Banerjee & Duflo, 2011; Sparrow et al., 2014). However, it is also necessary to take into account the presence of household interference in business activities. Many MSEs use facilities, tools, and equipment simultaneously for household and business purposes (Verrest, 2013). Therefore, in times of adverse shocks, households are vulnerable to selling off productive assets to protect their consumption. Thus, the addition of household and business assets (total assets) provides an additional and more comprehensive measure of long-term economic welfare (Vial & Hanoteau, 2015).

MSEs are used as a complement rather than a substitute activity, and aim to increase income and consumption (Verrest, 2013). When a household does not have the opportunity to allocate more time to work as an employee, it may find entrepreneurship to be the only solution to increase workforce supply. It allows households to mobilize an additional workforce as unpaid workers by increasing the number of family members or the amount of time spent in productive activities (Verrest, 2013).

The characteristics of household interference are also reflected in the possible direct consumption of business revenue by the household members. Business carried out by households becomes a source of food that is directly consumed (Floro & Bali Swain, 2013). This nonmarket source of consumption is magnified by the possibility of exchanging business products. This phenomenon also explains the additional purchasing power of households that can buy commodities and assets at lower prices through their business products (Verrest, 2013).

Households start a micro-business to address their vulnerability, as they allow diversification of their family income sources and encourage savings, partly in cash, but mostly in goods (Banerjee & Duflo, 2011; Verrest, 2013). Two other motives might explain entrepreneurial households' incentives to accumulate assets, namely the capital required to start and develop a business and the cost and availability of external financing, which are binding constraints on micro-businesses. Evidence shows that entrepreneurial households finance their businesses with personal or relative resources rather than credit and loans from formal institutions, making them save relatively more (Tipple, 2005).

Taking into account various household interference variables, this study examines variables that describe the characteristics of the business, household, and the person in charge of the business. In addition, this study examines the pattern of business sustainability from the business and household perspectives. Some of these variables, which used to be considered as outside systems, are assumed to contribute not only to the MSE performance, but also to the inherent characteristics of MSEs. Our hypotheses are:

H1: Household interference has an effect on Net revenue

H2: Household interference has an effect on household expenditure per capita

3. Methods

This study used secondary panel data from the Indonesian Family Life Survey (IFLS). A total of 14,901 households underwent one to four rounds of comprehensive interviews in 1993 (7,730 households), 1997 (10,166 households), 2000 (10,434 households), 2007 (13,995 households), and 2014 (16,931 households) in 13 of the 27 provinces, which accounted for 83% of the total population of Indonesia (Strauss et al., 2009, 2016). The survey covered a wide range of household and individual socioeconomic topics including entrepreneurial participation and economic welfare.

Because the concept of variables had to be described consistently in the questionnaire and data availability, while the database did not fulfill this requirement, the IFLS data used in this research were taken from two waves: the 2007 and 2014 surveys. Of the total surveyed households, 4,919 households (in 2007) and 5,759 households (in 2014) that had micro and small enterprises were taken as the sample. Finally, considering missing data, 7,020 out of 10,678 samples were used in this study.

In this study, a quantile regression model is used to analyze the impact of the household interference variable on the return to micro-entrepreneurship. The data used in this study were pooled using year as a dummy variable to control for economic conditions in the two years of the survey wave. This analysis strategy provides a greater observational advantage than using a panel data structure. Furthermore, using a pooled data structure with year as the dummy variable also provided information on the differences in economic conditions over the two years. Nevertheless, using this analysis strategy caused an inability to analyze the changes that occurred in the observations from the first wave to the second wave.

Because this study aims to analyze the impact of household interference variables on returns to micro-enterprises, it is structural and long-term. Using a panel data structure causes a significant reduction in the number of observations and potentially causes a sample selection bias. Therefore, using a pooled data structure is more appropriate (Gujarati & Porter, 2009). The high level of attrition in the existence of MSEs due to the ease of entry and exit causes that out of 7,020 sample observations, only 831 MSEs are available in the panel structure. It is also assumed to be strictly exogenous because the series is over a long period of time (Gujarati & Porter, 2009).

Based on the above explanation, the quantile regression model used in this study is as follows:

$$y^i = f(\text{householdinterference}, \text{householdcharacteristics}, \text{firmcharacteristics}, \text{year dummy}, \text{regiondummy}) \quad (1)$$

where y^i denotes the dependent variable, which is an indicator of return to micro-enterprises; $i = 1, 2$ denotes: (1) company performance in net revenue; and (2) household expenditure per capita.

4. Summary statistics

Table 1 presents the summary statistics of the research variables from the sample. From the two waves of the IFLS survey in 2007 and 2014, the average monthly MSE net revenue and the household expenditures per capita of MSE owners were IDR 2,041,676 and IDR 973,516, with medians of IDR 983,667 and IDR 698,574, respectively. The large gap between the mean and median values of the four dependent variables in this study and the large standard deviation showed that the data were not normally distributed.

These statistics support the use of the quantile regression method during the analysis stage. The quantile regression method corrects the inefficiency of the linear regression estimation model on data that are not normally distributed, even when there are outliers (Koenker, 2015; Koenker & Hallock, 2001). This method sorted and estimated the regression equation in several quantile groups along the distribution line of the dependent variable, that is, the MSE return.

Table 1. Summary Statistics of MSE Sample in Indonesia in 2007 and 2014

Variable	Net Revenue	Household Expenditure	Unpaid Worker	Consuming Revenue	Home Business	Partly Home Business
Full sample						
Observation			7,020 (1.00)			
Mean	2.041.676	973.516	0,80	0,75	0,51	0,23
Median	983.667	698.574	1	1	1	0
S.D.	4.040.151	1.067.181	0,40	0,43	0,50	0,42
Full sample, unpaid worker						
Observation			5,637 (0.80)			
Mean	1.528.382	870.074	1	0,77	0,49	0,22
Median	811.667	639.083	1	1	0	0
S.D.	2.697.182	874.879	0	0,42	0,50	0,42
Full sample, use paid worker or combination						
Observation			1,383 (0.20)			
Mean	4.133.821	1.395.140	0	0,68	0,59	0,23
Median	2.016.667	963.722	0	1	1	0
S.D.	6.912.230	1.562.433	0	0,47	0,49	0,42
Full sample, consuming revenue						
Observation			5,256 (0.75)			
Mean	1.977.685	955.660	0,82	1	0,49	0,23
Median	1.000.000	695.856	1	1	0	0
S.D.	3.505.539	1.021.683	0,38	0	0,50	0,42
Full sample, no revenue consumption						
Observation			1,764 (0.25)			
Mean	2.232.341	1.026.721	0,75	0	0,54	0,22
Median	916.667	706.693	1	0	1	0

(Continued)

Table 1. (Continued)

Variable	Net Revenue	Household Expenditure	Unpaid Worker	Consuming Revenue	Home Business	Partly Home Business
S.D.	5.320.504	1.191.229	0,43	0	0,50	0,41
Full sample, home business						
Observation	3,553 (0.51)					
Mean	2.321.869	992.440	0,77	0,73	1	0
Median	1.158.333	708.554	1	1	1	0
S.D.	4.559.229	1.164.540	0,42	0,44	0	0
Full sample, partly home business						
Observation	1,576 (0.22)					
Mean	1.912.640	901.827	0,80	0,76	0	1
Median	850.000	642.658	1	1	0	1
S.D.	3.921.098	882.210	0,40	0,43	0	0
Full sample, non home business						
Observation	1,891 (0.27)					
Mean	1.622.761	997.708	0,87	0,78	0	0
Median	750.000	728.625	1	1	0	0
S.D.	2.898.943	1.013.252	0,34	0,42	0	0

Source: Indonesian Family Life Survey (IFLS)

Table 1 presents the summary statistics based on the interference variables between business and household activities. Three indicators were used to explain these variables: the use of unpaid workers, the activity of direct business revenue consumption (consuming revenue), and the activity of running a home business or partly home business. Of the 7,020 micro- and small-scale household businesses used as samples, around 80% of the business units used unpaid workers, around 75% of them consumed business revenue directly, and 74% used home facilities for home businesses (51%) or partly home businesses (23%).

These statistics support the argument that there is overlap between business and household activities. Households and MSEs are inseparable because business is used as a strategy to meet the needs of life (Tipple, 2005). When poor people want to start their own businesses, they face some fundamental structural problems, such as lack of financial resources, education, and business-related skills (Chun & Watanabe, 2011; Garba, 2010; Valdivia, 2015). Thus, they should overcome such obstacles by utilizing their resources, such as using unemployed household members as workers and/or running a business from home along with the use of existing facilities (Moser, 1998). However, it is realized that this condition is not an optimal solution for households but is a decision based on existing conditions (bounded rationality) (Noviarto & Samputra, 2021). This becomes a rational reason from the household side (Ghate et al., 1996), serving as the inherent characteristic of MSEs to survive and as a reflection of poor households.

MSE revenue is the main source of household income (Moser, 1998). When the condition of nonexistent or small sources of household fixed income is faced with daily living needs, MSE revenue is the solution to fulfill such needs. Therefore, the consumption of business revenue and/or products directly is often found in MSEs. This form of micro-entrepreneurship often occurs in emerging market economies (Gindling & Newhouse, 2014; Mead & Liedholm, 1998). Poverty, or unemployment, is a driving factor (push motive) for households to open micro and small businesses. They cannot find good jobs and do not have the opportunity to earn a stable salary; therefore, running their own and self-managed businesses (Binder & Coad, 2013; Devece et al., 2016) has become a necessity-driven business (Block & Sandner, 2009; Liñán et al., 2013).

The tendency toward interference between MSE businesses and households generally occurs in Indonesia, as confirmed by the three indicators. In the MSE sample group that only employs unpaid workers, 77 percent of them directly consume their business revenue and 71 percent use it to support their home business or part of it. Meanwhile, in the MSE sample group that employs paid workers, only 68 percent of them directly consume their business revenue. Most (82%) used it to support their home businesses or part of it. Moreover, in the sample grouped based on their revenue consumption behavior, 82 percent of them employed unpaid workers, and 72 percent ran their business at home or part of it. Meanwhile, in the sample group that does not consume their business revenue, 75 percent of them employ unpaid workers, and 76 percent run a business at home or part of it. As for the indicator of running a home business, the three categories show a more consistent trend; that is, consuming revenue behavior ranges between 73–78 percent and employing unpaid workers between 77–87 percent.

Table 2 presents the average statistics of the research variables for the two MSE return quantiles. The two returns on micro-entrepreneurship variables (net revenue and household expenditure) show a larger average because of the higher quantile of each variable. Meanwhile, for the three household interference variables, the average consumption revenue and home business variables are relatively indifferent to each quantile of the return on the micro-entrepreneurship variable. The results indicate a comparison of the number of MSEs that consume business revenue for household expenses and use household facilities as a place of business, either in whole or in part, to those that do not have the same percentage. This means that these patterns occur equally in each quantile group of returns on micro entrepreneurship.

In contrast, the average value of the unpaid workers' variable tends to decrease because of the high return quantile of MSE. In the lowest 25 percent group, approximately 90 percent of the sample MSEs employ unpaid workers. Less than 10 percent of MSEs employ paid workers (all or part of it). At the higher quantiles, the percentage decreases. In the 25 percent group of MSEs with the highest returns, about 60 percent of the sample MSEs employ unpaid workers. This value indicates that MSEs tend to use paid workers when their return scales increase. These statistics show that of the three household interference variables, the variable of consuming revenue and home business that shows the interference between MSEs and their households is unpaid workers. A substantial share of all firms in Indonesia are micro, small, and medium-sized enterprises, and over 93% of firms are informal (Rothenberg et al., 2016). Different business models, consumption behavior, and the use of unpaid workers are inherent characteristics of a business model in emerging countries.

These statistics support the argument that net revenue only partially covers household owners' welfare. The summary statistics comparing entrepreneurial and non-entrepreneurial households show that the former are consistently and significantly wealthier in terms of the four measures (net revenue and consumption). Entrepreneurial household owners are, on average, more educated, more likely to have social capital, live in larger households, slightly older, and more likely to live in towns.

5. Results

Table 3 and 4 shows the quantile regression estimation results, OLS as a control, and the MSE return model from the perspective of net revenue. By including several control variables from firm, household, and regional characteristics, and by paying attention to the heteroscedasticity test (Table 5), the quantile regression estimation results show estimates that are consistent with the summary statistics and the characteristics of respondents.

In the net revenue model (DV: net revenue (ln)) as the dependent variable, household interference has an impact on the MSE return. The three household interference variables, dummy_unpaid workers, dummy_consuming revenue, and dummy_home business, have a significant effect on the net revenue. These results confirm our first hypothesis. The dummy_unpaid worker variable consistently shows a negative value in each quantile (Q0.10, Q0.25, Q0.50, Q0.75, and Q0.90). This shows that MSEs that use unpaid workers have lower business profits than those that use paid workers. This result is also consistent with the robust OLS regression model used for comparison.

The expected further interpretation of the quantile regression estimation is to observe the difference in the effect of the dummy_unpaid workers variable on different groups of return scales. The value of the regression coefficient in each quantile did not show a tendency to increase or decrease along the quantile distribution line. The different values of the regression coefficient in each quantile (-0.258, -0.309, -0.328, -0.371, and -0.403) are still near the mean value (the estimation result of the OLS regression coefficient: -0.406) and the standard deviation range (Figure 1, panel b). The equivalence test in Table 5 shows that there is no significant difference in the regression coefficients for each quantile. This conclusion was derived from the result of the Equivalent Coefficient F-test (1.26) and the result of the Prob<F test (0.2814).

In conclusion, the dummy_unpaid workers variable has a negative effect on net revenue, where MSEs using unpaid workers earn lower business profits than those using paid workers. Nevertheless, there is no difference in the effect of this variable on each quantile of the returns. This means that the use of unpaid workers is common and not affected by differences in the MSE return scale.

The same result is also shown by the return of MSE in terms of household economic welfare and also confirms our second hypothesis. Table 4 shows the results of the regression estimation of the MSE return model using household expenditure per capita (DV: household expenditure per capita (ln)) as the dependent variable. The dummy_unpaid worker variable also shows a negative value

Table 2. The average statistics per quantile of MSE samples in Indonesia in 2007 and 2014

Variable	Net Revenue	Household Expenditure	Unpaid Worker	Consuming Revenue	Home Business	Partly Home Business
By net revenue quantiles						
Bottom 25%	159.880	696.636	0,91	0,72	0,42	0,25
25–50%	638.318	757.526	0,88	0,77	0,49	0,24
50–75%	1.498.935	965.663	0,80	0,77	0,53	0,22
Top 75%	5.880.374	1.475.507	0,63	0,74	0,60	0,20
By household expenditure quantiles						
Bottom 25%	814.523	290.244	0,92	0,73	0,51	0,25
25–50%	1.257.142	550.192	0,84	0,77	0,49	0,24
50–75%	2.202.185	900.527	0,77	0,75	0,50	0,22
Top 75%	3.892.853	2.153.104	0,69	0,74	0,53	0,19
Full sample						
Mean	2.041.676	973.516	0,80	0,75	0,51	0,23

Source: Indonesian Family Life Survey (IFLS)

for each quantile. MSEs that employ unpaid workers have a lower per capita expenditure compared to those that employ paid workers.

The regression coefficient also shows no difference in each quantile (-0.158 , -0.173 , -0.169 , -0.208 , and -0.215) and is still in a random pattern around the mean value (OLS regression coefficient value: -0.189) and standard deviation range (Figure 2, panel b). The results of the equivalence test displayed in Table 5 also show no significant difference in the value of the regression coefficient for each quantile. This conclusion was derived from the result of the Equivalent Coefficient F-test (0.77) and the result of the Prob<F test (0.5473). Both of these results indicate that MSEs, whose workers are unpaid, have lower returns than those that use paid workers, and the magnitude of the effect of using unpaid workers is not affected by differences in the MSE return scale.

Furthermore, in the household interference variable group, the dummy_consuming revenue variable, the direct consumption activity of business revenue, is also controlled for the dependence of household needs on business revenue with the interaction variable dummy_consuming revenue # dependency ratio to revenue. In the net revenue return model (Table 3), the dummy_consuming revenue variable consistently shows a negative value for each quantile. This shows that MSEs whose household owners consume business revenue directly have lower business profits than those without such household interference. This result is consistent with the robust OLS model used as an estimation control.

The difference in the effect of the dummy_consuming revenue variable in each group of different return scales is indicated by the value of the regression coefficient in each quantile. The value of the regression coefficient in each quantile shows a tendency toward a smaller negative value along the quantile distribution line. The difference in the regression coefficient values for each quantile (-1.208 , -1.451 , -1.360 , -0.989 , and -0.832) is shown in Figure 1, panel c. Additionally, the results of the equivalence test (Table 5) provide evidence of a significant difference in the regression coefficient values for each quantile. It can be concluded that the dummy_consuming revenue variable affects the MSE return in the form of lower business profits; however, the effect of the dummy_consuming revenue variable decreases when the MSE profit value increases.

This means that the greater the business profit quantile, the smaller the difference in profits obtained by MSEs whose households consume business revenue directly than those who do not. The greater the profits obtained by MSEs, the greater is the share of profits allocated to households. With a great profit, the effect on returns is not too different, whether the profit share is taken directly for household needs or in the form of wages or profit sharing for households.

In accumulation, the revenue that is consumed directly is still part of the business profits, excluding the working capital portion, so it does not significantly affect the ability of the MSE's working capital turnover to generate revenue. Such a situation is different when the business profit is still small. Activities of consuming business revenue directly not only take a share of profits but also a share of working capital. If accumulated, the revenue taken reduces the MSE's working capital turnover, resulting in a greater effect on business profits. Thus, the effect of the direct consumption of business revenue decreases as the MSE profit quintile increases.

However, if the effect of direct consumption of business revenue is connected to the dependence of household income to meet their daily needs from business revenues, the conclusion that can be drawn for MSE households that directly consume their business revenue is that the greater the dependence on business revenue, the greater the profit obtained by the MSEs. The estimation results of the quantile regression coefficient of the variable dummy_consuming revenue # dependency ratio on revenue show a positive and different value in each quantile. From the smallest to the largest quantile, the regression coefficient values decrease (4,318, 3,607, 2,735, 1,853, and 1,466), indicating a tendency for the effect to weaken with the increasing MSE profit quantile.

Table 3. Results of Quantile Regression Estimation and OLS Model of MSE Return on Net Revenue

DV: net revenue (ln)	(1)	(2)	(3)	(4)	(5)	(6)
Variables	OLSr	Q(0.10)	Q(0.25)	Q(0.50)	Q(0.75)	Q(0.90)
Household Interference						
<i>dummy_unpaid worker</i>	-0.406*** (0.0395)	-0.258*** (0.0694)	-0.309*** (0.0565)	-0.328*** (0.0424)	-0.371*** (0.0470)	-0.403*** (0.0574)
<i>dummy_consuming revenue</i>	-1.114*** (0.0527)	-1.208*** (0.0780)	-1.451*** (0.0635)	-1.360*** (0.0477)	-0.989*** (0.0529)	-0.832*** (0.0646)
<i>dummy_consuming revenue# dependency ratio to revenue</i>	2.593*** (0.0705)	4.318*** (0.108)	3.607*** (0.0877)	2.735*** (0.0659)	1.853*** (0.0731)	1.466*** (0.0893)
<i>dummy_home business</i>	0.166*** (0.0324)	0.131** (0.0561)	0.0953** (0.0456)	0.128** (0.0342)	0.139*** (0.0380)	0.0207 (0.0464)
<i>dummy_partly home business</i>	0.00551 (0.0386)	0.0104 (0.0659)	-0.0349 (0.0536)	-0.0252 (0.0403)	0.0210 (0.0446)	-0.0259 (0.0545)
Firm Characteristics						
<i>age of firm</i>	0.0120*** (0.00150)	0.00488* (0.00260)	0.00735*** (0.00211)	0.00895*** (0.00159)	0.00839*** (0.00176)	0.00592*** (0.00215)
<i>assets (ln)</i>	0.176*** (0.00983)	0.130*** (0.0159)	0.131*** (0.0129)	0.163*** (0.00968)	0.158*** (0.0107)	0.164*** (0.0131)
<i>number of total worker</i>	0.0553*** (0.0100)	0.0148 (0.0157)	0.0391*** (0.0127)	0.0541*** (0.00956)	0.0790*** (0.0106)	0.0832*** (0.0130)
<i>dummy_trade sector</i>	0.121*** (0.0377)	0.0768 (0.0652)	0.110** (0.0531)	0.167*** (0.0398)	0.188*** (0.0442)	0.122** (0.0540)
<i>dummy_production sector</i>	0.106*** (0.0340)	0.115* (0.0605)	0.113** (0.0492)	0.149*** (0.0370)	0.114*** (0.0410)	0.0943* (0.0501)
<i>dummy_male</i>	0.398*** (0.0304)	0.258*** (0.0533)	0.264*** (0.0434)	0.326*** (0.0326)	0.323*** (0.0361)	0.292*** (0.0441)
<i>age of entrepreneur</i>	-0.00503*** (0.00143)	-0.000442 (0.00236)	-0.00354* (0.00192)	-0.00575*** (0.00144)	-0.00521*** (0.00160)	-0.00398** (0.00196)
<i>number of educational years completed</i>	0.0268*** (0.00360)	0.0185*** (0.00634)	0.0216*** (0.00516)	0.0213*** (0.00387)	0.0265*** (0.00429)	0.0300*** (0.00524)
<i>risk preferences index</i>	0.0127* (0.00688)	0.00532 (0.0117)	0.0178* (0.00954)	0.0151** (0.00716)	0.0126 (0.00794)	0.0114 (0.00970)
<i>dummy_involvement in social activities</i>	-0.0141 (0.0298)	-0.0165 (0.0517)	0.00606 (0.0421)	0.00895 (0.0316)	-0.0389 (0.0350)	-0.0410 (0.0428)
Household Characteristics						

(Continued)

Table3. (Continued)

DV: net revenue (ln)	(1)	(2)	(3)	(4)	(5)	(6)
number of household members	-0.0427*** (0.00877)	-0.0390*** (0.0145)	-0.0428*** (0.0118)	-0.0425*** (0.00888)	-0.0351*** (0.00985)	-0.0240** (0.0120)
ratio of household members < 15 years old	0.0999 (0.0771)	0.0248 (0.132)	-0.0260 (0.107)	0.0449 (0.0804)	0.130 (0.0892)	0.164 (0.109)
wages of working household members (per capita - ln)	0.152*** (0.00665)	0.503*** (0.00831)	0.335*** (0.00676)	0.183*** (0.00508)	0.108*** (0.00563)	0.0840*** (0.00688)
Region Characteristics						
dummy_java island	-0.185*** (0.0269)	-0.147*** (0.0494)	-0.154*** (0.0402)	-0.196*** (0.0302)	-0.142*** (0.0334)	-0.155*** (0.0408)
dummy_urban area	0.159*** (0.0310)	0.0662 (0.0539)	0.126*** (0.0438)	0.154*** (0.0329)	0.162*** (0.0365)	0.137*** (0.0446)
total population of the villagers (ln)	0.110*** (0.0176)	0.0471 (0.0297)	0.0872*** (0.0242)	0.109*** (0.0182)	0.112*** (0.0201)	0.113*** (0.0246)
dummy_year of 2014 (FLS-5)	0.442*** (0.0276)	0.194*** (0.0482)	0.352*** (0.0393)	0.475*** (0.0295)	0.557*** (0.0327)	0.591*** (0.0399)
constant	6.634*** (0.229)	2.103*** (0.384)	4.769*** (0.312)	6.749*** (0.234)	8.258*** (0.260)	9.002*** (0.318)
Observations	7,041	7,041	7,041	7,041	7,041	7,041
R-squared	0.451	-	-	-	-	-
R2_pseudo	-	0.343	0.314	0.287	0.270	0.266

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Indonesian Family Life Survey (IFLS)

Looking at the return from the aspect of household expenditure per capita, the dummy_consuming revenue variable has the opposite effect. In this model (DV: household expenditure per capita (ln)), the dummy_consuming revenue variable consistently shows a positive value for each quantile. This shows that MSEs whose household owners directly consume business revenue have higher household expenditures than those whose household owners do not interfere in the form of the direct consumption of business revenue.

The value of the regression coefficient in each quantile does not show a tendency to increase or decrease along the distribution line of the quantile. The difference in the value of the regression coefficient for each quantile (0.189, 0.201, 0.185, 0.149, and 0.201) is still around the mean value (OLS regression coefficient estimate:0.176) and standard deviation range (Figure 2, panel c). The results of the equivalence test displayed in Table 5 further indicate that there is no significant difference in the regression coefficients for each quantile. This conclusion was derived from the result of the Equivalent Coefficient F-test (0.67) and the result of the Prob<F test (0.7220). This implies that the dummy_consuming revenue variable has a positive effect on household expenditure per capita. MSEs whose household owners directly consume business revenue have a higher per capita expenditure compared to those in which there is no direct consumption of business revenue, but there is no difference in the effect of this variable on each return quantile.

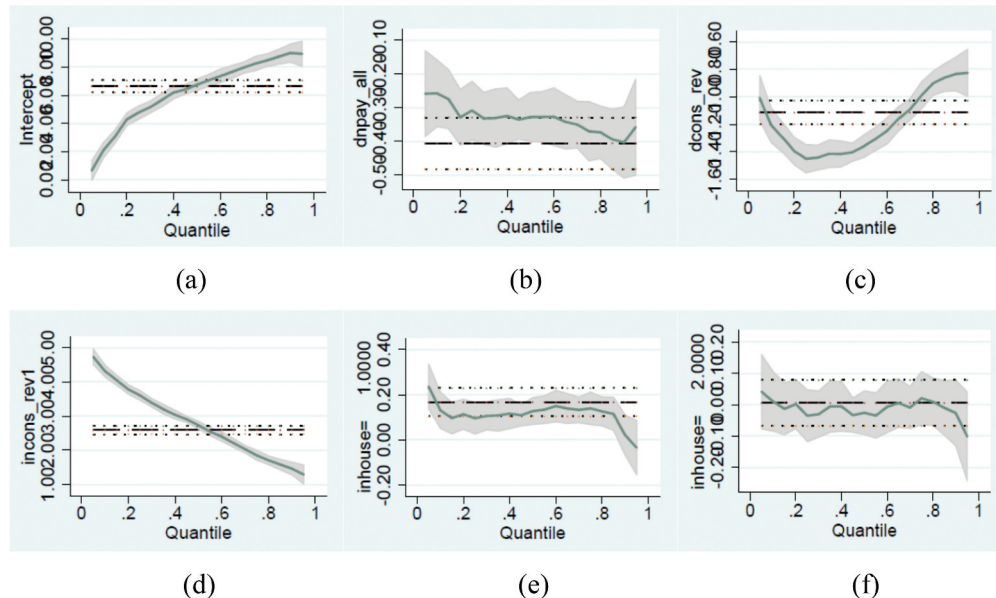
If the business profit return model is associated with the dependence of household income on MSE revenue to meet their daily needs, it can be concluded that the greater the dependence on business revenue, the smaller the household expenditure per capita. The estimation results of the quantile regression coefficient of the dummy_consuming revenue # dependency ratio to the revenue variable show a positive and different value in each quantile. From the smallest to the largest quantile, it can be seen that the regression coefficient values are getting smaller (4,318; 3,607; 2,735; 1,853; 1,466), indicating a tendency for the effect to get weaker with the increasing MSE profit quantile.

The last indicator of this group of household interference variables is the use of the home and its facilities as a place of business. This variable consists of three categories: (i) all businesses are carried out at home; (ii) some are carried out outside the home; and (iii) all businesses are carried out outside the home. In general, these variables do not show a significant effect, especially on the MSE return model, from the perspective of household expenditure per capita (DV: household expenditure per capita(ln)). The dummy_home business and dummy_partly home business variables show a negative regression coefficient value but have no significant effect on each quantile and OLS model.

However, in the MSE return model from the business profit aspect (DV: net revenue) in Table 3, the dummy_home business variable has a positive and significant value at the 0.10, 0.25, 0.50 and 0.75. This variable does not show a significant effect at the highest quantile (0.90). The dummy_home business variable classifies businesses carried out at home as category 1 compared with other places of business. This means that MSEs running at their owner's house have a higher business profit compared to those that partially or completely run out outside the owner's house at a quintile of 0.75 and below. Meanwhile, in MSEs with the highest return quantile (0.90), although the home business variable still shows a positive effect, the effect is no longer significant on MSE profits.

The results of the MSE return model analysis from the perspective of household interference in Indonesia, using the quantile regression model, succeed in proving the first hypothesis in this study, that is, household interference has an effect on MSE returns both from the aspect of business profits and household economic welfare. The use of the unpaid workers variable and the direct consumption of the business revenue variable supports the first hypothesis for each quantile. Both variables significantly influence the two MSE return models: the business profit

Figure 1. Graph of Regression Coefficient of Model of Business Profit Quantiles of Micro and Small Enterprise Return.



return model and household economic welfare return model. Meanwhile, the business carried out at home variable supports the first hypothesis only in the business profit return model.

The three variables show different effects for Micro and Small Enterprises based on the needs and constraints they face (ADB, 1997). Moving from the motive, which is the main reason for establishing a business, household interference in the form of consuming business revenue directly has a positive effect on meeting household needs, as indicated by higher expenditures in MSE households that consume business revenue directly. However, these activities have a negative impact on business. The other two variables affect the low resources owned by MSEs. To overcome this obstacle, the use of household members and facilities as business resources has become a rational choice for MSEs.

6. Discussion

The results of the analysis indicate that the household interference variable has an irreversible impact on MSE performance. The three household interference variables in the MSE sector, that is, the use of unpaid workers, the activity of direct business revenue consumption, and the use of home as the business place, have a significant influence on the MSE returns on business aspects and household economic welfare. This is in line with the Sustainability Family Business Theory (SFBT) proposed by Danes et al. (2008) and Stafford et al. (1999).

Therefore, the three forms of household interference become a solution to the limited capital and resources. Nevertheless, they can have either a disruptive impact on MSE returns or support MSE returns (Danes et al., 2008; Stafford et al., 1999). Employing unpaid workers from household members is an effort made by the household as the owner of the MSE to avoid the burden of business in the form of wages/salary. Such an MSE does not incur additional costs to pay wages for the utilization of resources required in its business operations. Utilization of unpaid workers is one solution to overcome the limited capital of MSEs.

However, the impact of reducing the wage component from the MSE burden does not offer greater added value to businesses in generating profits. Workers should provide added value in the production process as one of the inputs in production/entrepreneurship. As the workers employed are unemployed (because they cannot enter the world of work), they are untrained workers and lack adequate competence. Workers who come from household members consider their work only

**Table 4. Results of Quantile Regression Estimation and OLS Model of MSE Return on Household Expenditure per Capita
 DV: household expenditure per capita (ln)**

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	OLSr	Q(0.10)	Q(0.25)	Q(0.50)	Q(0.75)	Q(0.90)
Household Interference						
dummy_unpaid worker	-0.189*** (0.0195)	-0.158*** (0.0283)	-0.173*** (0.0252)	-0.169*** (0.0223)	-0.208*** (0.0273)	-0.215*** (0.0375)
dummy_consuming revenue	0.176*** (0.0236)	0.189*** (0.0331)	0.201*** (0.0294)	0.185*** (0.0261)	0.149*** (0.0319)	0.201*** (0.0438)
dummy_consuming revenue # dependency ratio to revenue	-0.378*** (0.0343)	-0.371*** (0.0490)	-0.382*** (0.0435)	-0.391*** (0.0386)	-0.369*** (0.0473)	-0.432*** (0.0648)
dummy_home business	-0.0196 (0.0153)	-0.00798 (0.0228)	-0.00797 (0.0203)	-0.0292 (0.0180)	-0.0110 (0.0220)	-0.0468 (0.0302)
dummy_partly home business	-0.0153 (0.0180)	0.00494 (0.0268)	-0.00976 (0.0238)	-0.0211 (0.0211)	-0.0239 (0.0258)	-0.0425 (0.0354)
Firm Characteristics						
age of firm	-0.00102 (0.000737)	-7.40e-05 (0.00106)	-0.00120 (0.000941)	-0.000768 (0.000835)	-0.000704 (0.00102)	-0.00193 (0.00140)
net revenue (ln)	0.149*** (0.00614)	0.151*** (0.00835)	0.148*** (0.00742)	0.153*** (0.00658)	0.159*** (0.00806)	0.143*** (0.0110)
number of total worker	0.0181*** (0.00437)	0.0158** (0.00636)	0.0141** (0.00565)	0.0214*** (0.00501)	0.0151** (0.00614)	0.0264*** (0.00842)
dummy_trade sector	0.00201 (0.0182)	-0.00914 (0.0265)	-0.00590 (0.0235)	0.00913 (0.0209)	0.00811 (0.0256)	-0.00784 (0.0351)
dummy_production sector	-0.0606*** (0.0166)	-0.0453* (0.0245)	-0.0381* (0.0218)	-0.0520*** (0.0193)	-0.0546** (0.0237)	-0.130*** (0.0325)
dummy_male	-0.122*** (0.0148)	-0.133*** (0.0219)	-0.102*** (0.0195)	-0.109*** (0.0173)	-0.140*** (0.0211)	-0.129*** (0.0290)
age of entrepreneur	0.00198*** (0.000700)	0.00221** (0.000952)	0.00203** (0.000845)	0.00168** (0.000749)	0.00202** (0.000918)	0.00303** (0.00126)
number of educational years completed	0.0331*** (0.00176)	0.0345*** (0.00254)	0.0312*** (0.00225)	0.0318*** (0.00200)	0.0311*** (0.00245)	0.0351*** (0.00336)
risk preferences index	0.00752** (0.00323)	0.00772 (0.00476)	0.00883** (0.00423)	0.00554 (0.00375)	0.00461 (0.00459)	0.00599 (0.00630)
dummy_involvement in social activities	0.0496*** (0.0141)	0.0437** (0.0209)	0.0550*** (0.0186)	0.0645*** (0.0165)	0.0638*** (0.0202)	-0.00214 (0.0276)
Household Characteristics						

(Continued)

Table 4. (Continued)
DV: household expenditure per capita (ln)

	(1)	(2)	(3)	(4)	(5)	(6)
number of household members	-0.127*** (0.00406)	-0.119*** (0.00581)	-0.124*** (0.00516)	-0.118*** (0.00458)	-0.123*** (0.00561)	-0.131*** (0.00769)
ratio of household members < 15 years old	-0.412*** (0.0365)	-0.229*** (0.0533)	-0.337*** (0.0473)	-0.432*** (0.0419)	-0.507*** (0.0514)	-0.564*** (0.0704)
wages of working household members (per capita - ln)	0.00225 (0.00265)	0.00749** (0.00362)	0.00432 (0.00321)	0.00154 (0.00285)	0.00267 (0.00349)	0.00346 (0.00478)
Region Characteristics						
dummy_java island	-0.129*** (0.0136)	-0.113*** (0.0201)	-0.117*** (0.0179)	-0.124*** (0.0158)	-0.142*** (0.0194)	-0.127*** (0.0266)
dummy_urban area	0.0500*** (0.0146)	0.0498** (0.0219)	0.0580*** (0.0194)	0.0386** (0.0172)	0.0500** (0.0211)	0.0406 (0.0290)
total population of the villagers (ln)	0.0815*** (0.00807)	0.0793*** (0.0121)	0.0801*** (0.0108)	0.0791*** (0.00954)	0.0897*** (0.0117)	0.0791*** (0.0160)
dummy_year of 2014 (ifls-5)	0.550*** (0.0133)	0.551*** (0.0197)	0.551*** (0.0175)	0.547*** (0.0155)	0.557*** (0.0190)	0.560*** (0.0261)
constant	10.98*** (0.104)	10.13*** (0.148)	10.53*** (0.131)	10.91*** (0.117)	11.18*** (0.143)	11.84*** (0.196)
Observations	7,041	7,041	7,041	7,041	7,041	7,041
R-squared	0.541	-	-	-	-	-
R2_pseudo	-	0.338	0.338	0.333	0.318	0.311

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Indonesian Family Life Survey (IFLS)

as a time filler because there are no other jobs that generate their income. As a result, such an MSE generates a lower return than an MSE that employs workers who are paid to work in accordance with their competencies, both from the aspect of business profits and household economic welfare.

The negative effect of using unpaid workers from household members is not an inherent characteristic of MSE but rather the need for households to allocate their limited resources to businesses. The frequency of MSEs using unpaid workers decreased because of an increase in business returns. As shown in Table 1 of statistics summary, the frequency distribution decreases owing to higher MSE return quantiles from both business and household expenses. In the 25 percent MSE quantile, with the lowest household revenue and expenditure, more than 90 percent of MSEs in this group use unpaid workers. This percentage is getting smaller, so that it can be seen that in the 25 percent MSE quintile with the highest household revenue and expenditure, only 60 percent of MSEs use unpaid workers.

The decreasing frequency of MSEs using unpaid workers is in line with the increase in business profits and per capita household expenditure. This means that an increase in business profits followed by an increase in household economic welfare will reduce the burden of MSEs on the problem of household poverty. In addition, the increase in household economic welfare has implications for the initiation of family functions. The more prosperous the households, the more ability they have to fulfill their needs, such as education and health, which ultimately increases the chance of household members entering the world of work. This helps reduce the burden on MSEs in accommodating unemployed household members. Moreover, the increase in business profits provides space for businesses to start using paid workers who are certainly more competent in managing the business, impacting higher profit results.

Publications by ADB (1997) categorized business groups as livelihood activities. The use of unpaid workers is one of the characteristics of MSE, and its existence is driven by the compulsion motivation to meet the necessities of life (Williams & Williams, 2014). This statistical summary indirectly shows that MSE is still the majority. The number of MSEs whose existence is motivated by life necessities increases, but business returns decrease. Limited capital and capacity are characteristics of MSEs that grow in low-income households. When an MSE is established because of compulsion, it is understandable that the household owner does not have sufficient capacity and capital to start a business. The business is made because of unemployment or a lack of existing income.

Furthermore, the necessity-driven motive for setting up a business makes the activity of consuming business revenue reasonable in the MSE sector. Business revenue serves as an income source for households to meet their daily needs. From a business perspective, the income stream obtained by households as business owners and owners of labor production factors must be in the form of profit sharing or wages. Both cash flows have longer receipt cycles. Wages are generally given every month, while profit sharing is distributed one year after closing the books, so how much business profit can be distributed is known.

However, the drive for necessities of life is a short-term (daily) activity. The demand to meet the necessities of life cannot be postponed, so business revenue becomes a rational choice for direct use. Consuming business revenue supports the fulfillment of household life needs, as reflected in higher household expenditures. However, from a business perspective, the activity of consuming business revenue directly is a disruption to the business because it will not only take a share of the profits but also a share of the business capital. As a result, such an MSE will generate lower profits than an MSE, in which the household owner does not directly consume the business revenue.

In bookkeeping, direct consumption of business revenue results in difficulties separating cash flows between businesses and households because some of the revenue flows directly into the

Table 5. Results of Test of Heteroskedasticity and Equivalence of Regression Coefficient of Micro and Small Business Return Model

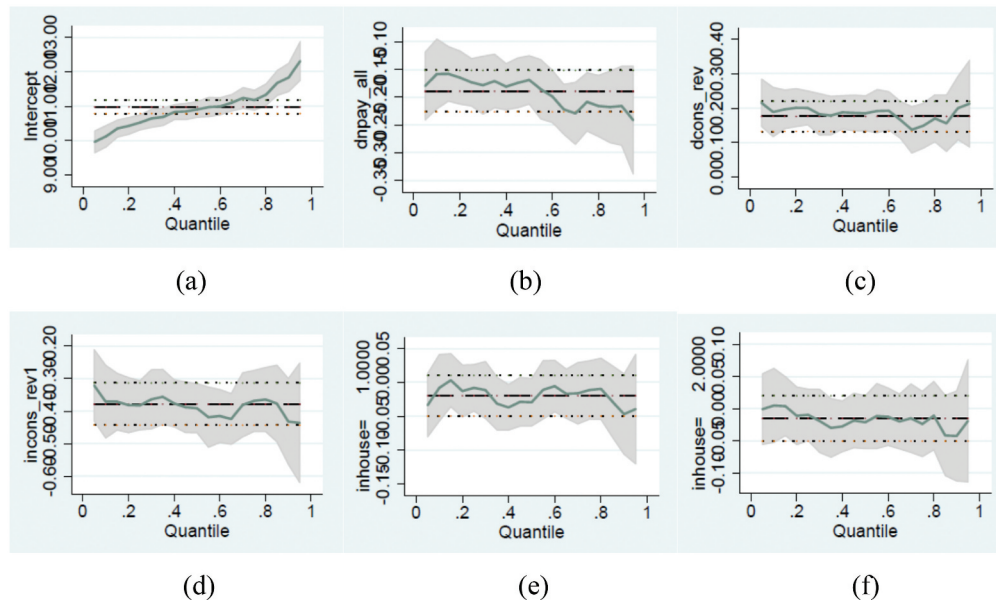
	Test of Heteroskedasticity [^]			Test of coefficient equality*		
		d_unpaid worker (all)	d_consuming revenue	d_home business		
Net Revenue (ln)	708.64 (0.0000)	1.26 (0.2814)	87.85 (0.0000)	1.39 (0.1955)		
Household Expenditure per Capita (ln)	64.57 (0.0000)	0.77 (0.5473)	0.67 (0.7220)	0.52 (0.8389)		

* Equivalency Coefficient F test (Prob<F)

[^] Breusch-Pagan/Cook-Weisberg (chi2)

Source: Indonesian Family Life Survey (IFLS)

Figure 2. Graph of Regression Coefficient of Model of Household Expenditure Quantiles of Micro and Small Enterprise Return.



household. In addition, there is the risk of sharing business capital. Therefore, an assessment of business performance based solely on revenue, profit, or employment growth (Tehseen & Anderson, 2020) cannot be applied to the MSE sector. Using a business entity approach makes many MSEs underdeveloped, failing to expand their businesses over their lifespan (Davidsson, 2010; McKelvie & Wiklund, 2010). This gives the impression that MSEs have no desire to grow (Brush et al., 2009) even though their sales show results as well as businesses with high growth rates. By ignoring the existence of direct cash flow of business revenue to households, the results tend to be smaller than they are (negative bias).

Furthermore, homes and their facilities are frequently used in the MSE sector. For example, unpaid workers and homes and their facilities become an option that can be used when there is a lack of capital to run a business. Operating a business from home will reduce the costs incurred to provide a place of business. This is indicated by the higher business profits generated by MSE that use the home as a place of business. However, when the business becomes large, the ability of the home country to support the business is limited, so this activity does not have an impact on business profits. Meanwhile, from the household side, the use of the home and its facilities for a place of business does not have an impact on household economic welfare.

Household interference that occurs in the MSE sector, especially in MSE, which is motivated by necessity-driven motives, is undeniably very common in emerging economies, including Indonesia. The interference cannot be seen only as an external factor but also as an inseparable part of the MSE. There is an overlap between business activities and household ownership. Resource allocation in MSE becomes part of household resource allocation decisions and vice versa. The processes of production and consumption become a unified decision between businesses and households. The various obstacles faced by the MSE and the household owner will have an impact on both.

When household interference occurs, the achievement of MSEs' goals cannot be separated from households. The MSE returns are not only seen as separate business profits but also as a part of household economic welfare. Business profits and household expenditures are appropriate indicators of MSE returns.

Overall, the results of this study indicate that adopting the approaches used in the Sustainability Family Business Theory (SFBT) model (Danes et al., 2008; Stafford et al., 1999) can solve the

problem discussed in prolonged debates in the Micro and Small Business (MSE) sector. MSE performance cannot be observed only from the perspective of business growth (Tehseen & Anderson, 2020). A more comprehensive approach is needed to measure MSE returns, including household economic welfare (Vial & Hanoteau, 2015). As a business that departs from the household because of the urge to meet life necessities (necessity-driven), business and household are “inextricably intertwined” (Tipple, 2005). There is an overlap between businesses and households, referred to as household interference in this study.

This research shows more precise results that there is a stream of income within businesses and households. This was indicated by the presence of household interference and the results of the analysis. The findings of this study are a fact that has been going on for a long time. However, using the SFBT approach, these findings provide a new perspective on household-based businesses, especially MSEs. Commonly, there is an overlap between business and household activities that must be addressed in MSE performance analysis. Household interference plays a vital role in MSE performance. It cannot be seen as a form of disruption to businesses, because it is an inherent characteristic of MSEs.

Operating a business to fulfill the necessities of life cannot be seen exclusively from a business perspective. Households need income that can only be met from business revenue. It is sufficient for them as long as they can fulfill their needs. Expanding business into the formal sector is not a priority. They feel comfortable with their businesses’ informal status because the goal is to meet their living needs. They do not think that there is a need to become a formal sector. They are not motivated to make their MSE an economic center, and their MSE only becomes their extended family business. By remaining in a household business, they will not be bothered by all administrations related to the process of transforming their business into a formal economy.

On the other hand, making them formal creates new obstacles. The costs and efforts they must meet in the licensing process do not add value to them, and even create new costs. The obstacle is becoming more difficult regarding the tax provisions charged to them at 0.5% of sales turnover (Law Number 23 of 2018). The imposition of taxes on MSEs when they become the formal sector is burdensome for their businesses. In fact, due to their poverty, they should be the state’s responsibility and get a share of the tax.

Household interference is evidence of overlap between business and household activities in the MSE sector. This is a common fact, so various aspects of the household should be included in studies related to MSEs. The SFBT model explains this finding and provides a new perspective on necessity-driven businesses. Household interference plays a vital role in the performance of MSEs. It cannot be seen as a form of disruption to businesses because it is an inherent characteristic of MSEs.

7. Conclusion

This study examined the effect of household interference on business returns and household economic welfare of Micro and Small Enterprises (MSEs). The results show that household interferences in the use of unpaid workers, direct consumption of business revenue, and use of home facilities as a place of business are found in most MSEs in developing countries, affecting the returns on micro-businesses. This is evidence that the existence of MSEs is more of a compulsion to meet the needs of household life than an entrepreneurial motivation driven by innovative, proactive, and risk-taking attitudes. Seeing the role of MSEs based solely on their entrepreneurial activities and classifying them based on business scales leads to a debate that is getting further away from the urgency of the existence of MSEs.

As a business driven by the motivation to meet life necessities, MSE is established without adequate planning and preparation of resources. Hence, various forms of household interference have become rational solutions. Asset utilization, production, and consumption processes become

unified decisions between businesses and households. In addition, the obstacles faced by businesses and households affect each other. Household interference provides a perspective from which to view MSE and household owners as a unified system. Managerially, this has implications for the management and performance appraisal of MSEs, which cannot be seen as a stand-alone entity but from a business and household economic welfare standpoint.

The classification of MSEs into micro-, small-, medium-, and large-scale currently carried out provides a perspective that they have the same characteristics to compete in their group. MSEs that grow in a poor environment face more severe obstacles than those in a well-off household environment. It is unfair when MSEs that grow in different economic environments must compete because they encounter different levels of obstacles. Meanwhile, distinguishing between formal and informal status results in prioritizing the government's interests rather than the urgency of their needs. Policymakers should first consider classifying necessity-driven and opportunity-driven businesses based on the level of household poverty and household interference, thus that appropriate policies can be determined according to their needs and constraints.

Household interference found in most MSEs become the basis for seeing that they cannot be seen as purely relationship-oriented businesses. However, they are household activities that meet the needs of life. Such interference shows an overlap between business and household activities. Therefore, the approach and assumptions used in the Sustainability Family Business Theory model proposed by Stafford et al. (1999) can be used to conduct analyses related to MSEs, especially those motivated by necessity-driven activities. Using this approach, further research is suggested to model the MSE and its household owner as an inseparable system, starting from input to output. The characteristics of households and various forms of household interference are not external factors, but are inherent, serving as business characteristics. Moreover, MSE performance assessment must be broadly viewed as a cash flow to businesses and households.

Last, as a new perspective in the study of MSEs, this research has limitations in using secondary data and only in the Indonesian context. This perspective needs to be further investigated using variables that are more in line with the context of household interference and in other emerging countries.

Funding

The authors received no direct funding for this research.

Author details

Ramel Yanuarta RE¹
E-mail: ramel.yanuarta@fe.unp.ac.id
ORCID ID: <http://orcid.org/0000-0001-5693-0459>
²
ORCID ID: <http://orcid.org/0000-0003-2072-9336>
Fajri Muharja²
ORCID ID: <http://orcid.org/0000-0003-2214-2889>
Donard Games³
ORCID ID: <http://orcid.org/0000-0003-4307-2445>
¹ Department of Management, Universitas Negeri Padang, Padang, Indonesia.
² Department of Economics, Universitas Andalas, Padang, Indonesia.
³ Department of Management, Universitas Andalas, Padang, Indonesia.

Disclosure statement

No potential conflict of interest was reported by the authors.

Citation information

Cite this article as: The misconceptions on MSE research in an emerging market economy: The role of household interference in Indonesia, Ramel Yanuarta RE, Elfindri,

Fajri Muharja & Donard Games, *Cogent Business & Management* (2023), 10: 2212498.

References

- ADB. (1997). *Microenterprise Development: Not by Credit Alone*. Asian Development Bank.
- Alvarez, S. A., & Barney, J. B. (2014). Entrepreneurial Opportunities and Poverty Alleviation. *Entrepreneurship: Theory & Practice*, 38(1), 159–184. <https://doi.org/10.1111/etap.12078>
- Bajde, D. (2013). Marketized philanthropy: Kiva's utopian ideology of entrepreneurial philanthropy. *Marketing Theory*, 13(1), 3–18. <https://doi.org/10.1177/1470593112467265>
- Banerjee, A., & Duflo, E. (2011). *POOR ECONOMICS: A radical rethinking of the way to fight global poverty*. PublicAffairs.
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal Applied Economics*, 7(1), 22–53. <https://doi.org/10.1257/app.20130533>
- Binder, M., & Coad, A. (2013). Life satisfaction and self-employment: A matching approach. *Small Business Economics*, 40(4), 1009–1033. <https://doi.org/10.1007/s11187-011-9413-9>
- Block, J., & Sandner, P. (2009). Necessity and Opportunity Entrepreneurs and Their Duration in Self-employment:

- Evidence from German Micro Data. *Journal of Industry, Competition and Trade*, 9(2), 117–137. <https://doi.org/10.1007/s10842-007-0029-3>
- Brünjes, J., & Diez, J. R. (2013). “Recession push” and “prosperity pull” entrepreneurship in a rural developing context. *Entrepreneurship & Regional Development*, 25(3–4), 251–271. <https://doi.org/10.1080/08985626.2012.710267>
- Brush, C. G., Ceru, D. J., & Blackburn, R. (2009). Pathways to entrepreneurial growth: The influence of management, marketing, and money. *Business Horizons*, 52(5), 481–491. <https://doi.org/10.1016/j.bushor.2009.05.003>
- Bruton, G., Khavul, S., Siegel, D., & Wright, M. (2015). New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovations. *Entrepreneurship: Theory & Practice*, 39(1), 9–26. <https://doi.org/10.1111/etap.12143>
- Carter, S. (2011). The Rewards of Entrepreneurship: Exploring the Incomes, Wealth, and Economic Well-Being of Entrepreneurial Households. *Entrepreneurship: Theory & Practice*, 35(1), 39–55. <https://doi.org/10.1111/j.1540-6520.2010.00422.x>
- Chandler, G. N., & Hanks, S. H. (1993). Measuring the performance of emerging businesses: A validation study. *Journal of Business Venturing*, 8(5), 391–408. [https://doi.org/10.1016/0883-9026\(93\)90021-V](https://doi.org/10.1016/0883-9026(93)90021-V)
- Chun, N., & Watanabe, M. (2011). *Can Skill Diversification Improve Welfare in Rural Areas? Evidence from the Rural Skills Development Project in Bhutan*. Issue 260. Asian Development Bank (ADB). <http://hdl.handle.net/10419/109391>
- Claessens, S., & Fan, J. P. H. (2002). Corporate Governance in Asia: A Survey. *International Review of Finance*, 3(2), 71–103. <https://doi.org/10.1111/1468-2443.00034>
- Danes, S. M., Lee, J., Stafford, K., & Heck, R. K. A. Y. Z. (2008). The Effects of Ethnicity, Families and Culture on Entrepreneurial Experience: An Extension of Sustainable Family Business Theory. *Journal of Developmental Entrepreneurship*, 13(03), 229–268. <https://doi.org/10.1142/S1084946708001010>
- Daniels, L., & Mead, D. C. (1998). The Contribution of Small Enterprises to Household and National Income in Kenya. *Economic Development & Cultural Change*, 47(1), 45–71. <https://doi.org/10.1086/452386>
- Davidsson, P. (2010). Small Firm Growth. *Foundations and Trends® in Entrepreneurship*, 6(2), 69–166. <https://doi.org/10.1561/03000000029>
- DeAngelo, H., & DeAngelo, L. (2000). Controlling stockholders and the disciplinary role of corporate payout policy: A study of the Times Mirror Company. *Journal of Financial Economics*, 56(2), 153–207. [https://doi.org/10.1016/S0304-405X\(00\)00039-8](https://doi.org/10.1016/S0304-405X(00)00039-8)
- Devece, C., Peris-Ortiz, M., & Rueda-Armengot, C. (2016). Entrepreneurship during economic crisis: Success factors and paths to failure. *Journal of Business Research*, 69(11), 5366–5370. <https://doi.org/10.1016/j.jbusres.2016.04.139>
- de Vries, N., Liebrechts, W., & van Stel, A. (2020). Explaining entrepreneurial performance of solo self-employed from a motivational perspective. *Small Business Economics*, 55(2), 447–460. <https://doi.org/10.1007/s11187-019-00244-8>
- Edusah, S. E. (2013). The Informal Sector, Micro-Enterprises and Small-Scale Industries: The Conceptual Quandary. *Journal of Economics & Sustainable Development*, 4(20), 177–185.
- Fairlie, R., & Fossen, F. (2017). Opportunity versus Necessity Entrepreneurship: Two Components of Business Creation. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3010267>
- Ferreira, F. H. G., & Lanjouw, P. (2001). Rural Nonfarm Activities and Poverty in the Brazilian Northeast. *World Development*, 29(3), 509–528. [https://doi.org/10.1016/S0305-750X\(00\)00111-X](https://doi.org/10.1016/S0305-750X(00)00111-X)
- Fiseha, G. G., & Oyelana, A. A. (2015). An Assessment of the Roles of Small and Medium Enterprises (SMEs) in the Local Economic Development (LED) in South Africa. *Journal of Economics*, 6(3), 280–290. <https://doi.org/10.1080/09765239.2015.11917617>
- Floro, M. S., & Bali Swain, R. (2013). Food Security, Gender, and Occupational Choice among Urban Low-Income Households. *World Development*, 42, 89–99. <https://doi.org/10.1016/j.worlddev.2012.08.005>
- Garba, A. S. (2010). Refocusing Education System towards Entrepreneurship Development in Nigeria: A Tool for Poverty Eradication. *European Journal of Social Sciences – Volume Number*, 15(1), 140–150.
- Ghate, P., Ballon, E., & Manalo, V. (1996). Poverty alleviation and enterprise development: The need for a differentiated approach. *Journal of International Development*, 8(2), 163–178. [https://doi.org/10.1002/\(SICI\)1099-1328\(199603\)8:2<163::AID-JID379>3.0.CO;2-L](https://doi.org/10.1002/(SICI)1099-1328(199603)8:2<163::AID-JID379>3.0.CO;2-L)
- Gindling, T. H., & Newhouse, D. (2014). Self-Employment in the Developing World. *World Development*, 56, 313–331. <https://doi.org/10.1016/j.worlddev.2013.03.003>
- Gudmunson, C., & Danes, S. (2013). Family Social Capital in Family Businesses: A Stocks and Flows Investigation. *Family Relations*, 62(3), 62. <https://doi.org/10.1111/fare.12017>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics*. McGraw-Hill Irwin. <https://books.google.com.my/books?id=6l1CPgAACAAJ>
- Hamilton, B. H. (2000). Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment. *Journal of Political Economy*, 108(3), 604–631. <https://doi.org/10.1086/262131>
- Hermes, N., & Lensink, R. (2011). Microfinance: Its Impact, Outreach, and Sustainability. *World Development*, 39(6), 875–881. <https://doi.org/10.1016/j.worlddev.2009.10.021>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Koenker, R. (2015). Quantile Regression. In *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed) (Vol. 19). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.42074-X>
- Koenker, R., & Hallock, K. F. (2001). Quantile Regression. *Journal of Economic Perspectives*, 15(4), 143–156. <https://doi.org/10.1257/jep.15.4.143>
- Krasniqi, B., & Branch, D. (2020). Institutions and firm growth in a transitional and post-conflict economy of Kosovo. *Journal of Entrepreneurship in Emerging Economies*, 12(2), 187–204. <https://doi.org/10.1108/JEEE-05-2017-0034>
- Lateh, M., Hussain, M., Halim, A., & S, M. (2017). Micro Enterprise Development and Income Sustainability for Poverty Reduction: A Literature Investigation. *International Journal of Business and Technopreneurship*, 7(1), 23–38.
- Lee, D. Y., & Tsang, E. W. K. (2001). The effects of entrepreneurial personality, background and network activities on venture growth*. *Journal of Management Studies*, 38(4), 583–602. <https://doi.org/10.1111/1467-6486.00250>
- Liñán, F., Fernández-Serrano, J., & Romero, I. (2013). Necessity and opportunity entrepreneurship: The mediating effect of culture. *Revista de Economía Mundial*, 33, 27–51.

- Mandelman, F. S., & Montes-Rojas, G. V. (2009). Is Self-employment and Micro-entrepreneurship a Desired Outcome? *World Development*, 37(12), 1914–1925. <https://doi.org/10.1016/j.worlddev.2009.05.005>
- McKelvie, A., & Wiklund, J. (2010). Advancing Firm Growth Research: A Focus on Growth Mode Instead of Growth Rate. *Entrepreneurship: Theory & Practice*, 34(2), 261–288. <https://doi.org/10.1111/j.1540-6520.2010.00375.x>
- Mead, D. C., & Liedholm, C. (1998). The dynamics of micro and small enterprises in developing countries. *World Development*, 26(1), 61–74. [https://doi.org/10.1016/S0305-750X\(97\)10010-9](https://doi.org/10.1016/S0305-750X(97)10010-9)
- Mohiuddin, M., Mazumder, M. N. H., Al Mamun, A., & Su, Z. (2020). Evolution of social microenterprises from rural to the urban area: A study on income-generating micro-entrepreneurs in an urban context. *Strategic Change*, 29(4), 435–446. <https://doi.org/10.1002/jsc.2355>
- Moradi, M., Imanipour, N., Mohammadkazemi, R., & Arasti, Z. (2020). Poverty and entrepreneurship: A systematic review of poverty-related issues discussed in entrepreneurship literature. *World Review of Entrepreneurship Management and Sustainable Development*, 16(2), 125. <https://doi.org/10.1504/WREMSD.2020.105984>
- Moser, C. O. N. (1998). The asset vulnerability framework: Reassessing urban poverty reduction strategies. *World Development*, 26(1), 1–19. [https://doi.org/10.1016/S0305-750X\(97\)10015-8](https://doi.org/10.1016/S0305-750X(97)10015-8)
- Najafizada, S. A. M., & Cohen, M. J. (2017). Social entrepreneurship tackling poverty in Bamyan Province, Afghanistan. *World Development Perspectives*, 5, 24–26. <https://doi.org/10.1016/j.wdp.2017.02.003>
- Nichter, S., & Goldmark, L. (2009). Small Firm Growth in Developing Countries. *World Development*, 37(9), 1453–1464. <https://doi.org/10.1016/j.worlddev.2009.01.013>
- Noviarto, S., & Samputra, P. (2021). MSME's sustainable economic behavior for struggling poverty: Agency theory vs. bounded rationality theory. *IOP Conference Series: Earth and Environmental Science*, 716, 12120. <https://doi.org/10.1088/1755-1315/716/1/012120>
- Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K. Z., & Duncan, K. A. (2003). The impact of the family and the business on family business sustainability. *Journal of Business Venturing*, 18(5), 639–666. [https://doi.org/10.1016/S0883-9026\(03\)00014-4](https://doi.org/10.1016/S0883-9026(03)00014-4)
- Oyelana, A. A., & Adu, E. O. (2015). Small and Medium Enterprises (SMEs) as a Means of Creating Employment and Poverty Reduction in Fort Beaufort, Eastern Cape Province of South Africa. *Journal of Social Sciences*, 45(1), 8–15. <https://doi.org/10.1080/09718923.2015.11893481>
- Raghuvanshi, J., Agrawal, R., & Ghosh, P. K. (2017). Analysis of Barriers to Women Entrepreneurship: The DEMATEL Approach. *Journal of Entrepreneurship*, 26(2), 220–238. <https://doi.org/10.1177/0971355717708848>
- Rambe, P., & Mosweunyane, L. (2017). A poverty-reduction oriented perspective to small business development in South Africa: A human capabilities approach. *African Journal of Science, Technology, Innovation & Development*, 9(3), 289–302. <https://doi.org/10.1080/20421338.2017.1322749>
- Rezaei, S., Dana, L. -P., & Ramadani, V. (2017). *Introduction to Iranian Entrepreneurship BT - Iranian Entrepreneurship: Deciphering the Entrepreneurial Ecosystem in Iran and in the Iranian Diaspora*. Springer International Publishing. (S. Rezaei, L.-P. Dana, & V. Ramadani (eds.). https://doi.org/10.1007/978-3-319-50639-5_1
- Rothenberg, A. D., Gaduh, A., Burger, N. E., Chazali, C., Tjandraningsih, I., Radikun, R., Sutera, C., & Weiland, S. (2016). Rethinking Indonesia's Informal Sector. *World Development*, 80, 96–113. <https://doi.org/10.1016/j.worlddev.2015.11.005>
- Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization*, 2, 100018. <https://doi.org/10.1016/j.resglo.2020.100018>
- Sparrow, R., Van de Poel, E., Hadiwidjaja, G., Yumna, A., Warda, N., & Suryahadi, A. (2014). Coping with the economic consequences of ill health in Indonesia. *Health Economics*, 23(6), 719–728. <https://doi.org/10.1002/hec.2945>
- Stafford, K., Danes, S. M., & Haynes, G. W. (2013). Long-term family firm survival and growth considering owning family adaptive capacity and federal disaster assistance receipt. *Journal of Family Business Strategy*, 4(3), 188–200. <https://doi.org/10.1016/j.jfbs.2013.06.002>
- Stafford, K., Duncan, K. A., Dane, S., & Winter, M. (1999). A Research Model of Sustainable Family Businesses. *Family Business Review*, 12(3), 197–208. <https://doi.org/10.1111/j.1741-6248.1999.00197.x>
- Strauss, J., Witoelar, F., & Sikoki, B. (2016). *The Fifth Wave of the Indonesia Family Life Survey (IFLS5): Overview and Field Report*. WR-1143/1-NIA/NICHD.
- Strauss, J., Witoelar, F., Sikoki, B., & Wattie, A. M. (2009). *The Fourth Wave of the Indonesia Family Life Survey (IFLS4): Overview and Field Report*. WR-675/1-NIA/NICHD.
- Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(1). <https://doi.org/10.1186/s40497-018-0140-4>
- Tehseen, S., & Anderson, A. R. (2020). Cultures and entrepreneurial competencies; ethnic propensities and performance in Malaysia. *Journal of Entrepreneurship in Emerging Economies*, 12(5), 643–666. <https://doi.org/10.1108/JEEE-10-2019-0156>
- Tipple, G. (2005). The Place of Home-based Enterprises in the Informal Sector: Evidence from Cochabamba, New Delhi, Surabaya and Pretoria. *Urban Studies*, 42(4), 611–632. <https://doi.org/10.1080/00420980500060178>
- Tunberg, M., & Anderson, A. R. (2020). Growing a small firm; experiences and managing difficult processes. *International Entrepreneurship & Management Journal*, 16(4), 1445–1463. <https://doi.org/10.1007/s11365-020-00647-0>
- Valdivia, M. (2015). Business training plus for female entrepreneurship? Short and medium-term experimental evidence from Peru. *Journal of Development Economics*, 113, 33–51. <https://doi.org/10.1016/j.jdevco.2014.10.005>
- Verrest, H. (2013). Rethinking Microentrepreneurship and Business Development Programs: Vulnerability and Ambition in Low-income Urban Caribbean Households. *World Development*, 47, 58–70. <https://doi.org/10.1016/j.worlddev.2013.02.016>
- Vial, V., & Hanoteau, J. (2015). Returns to Micro-Entrepreneurship in an Emerging Economy: A Quantile Study of Entrepreneurial Indonesian Households' Welfare. *World Development*, 74, 142–157. <https://doi.org/10.1016/j.worlddev.2015.04.008>

- Wiklund, J. (1999). The Sustainability of the Entrepreneurial Orientation—Performance Relationship. *Entrepreneurship: Theory & Practice*, 24(1), 37–48. <https://doi.org/10.1177/104225879902400103>
- Williams, N., & Williams, C. C. (2014). Beyond necessity versus opportunity entrepreneurship: Some lessons from English deprived urban neighbourhoods. *International Entrepreneurship & Management Journal*, 10(1), 23–40. <https://doi.org/10.1007/s11365-011-0190-3>
- Yang, Y., & Danes, S. M. (2015). Resiliency and Resilience Process of Entrepreneurs in New Venture Creation. *Entrepreneurship Research Journal*, 5(1), 1–30. <https://doi.org/10.1515/erj-2013-0076>
- Yumna, A., Marta, J., & Yanuarto RE, R., (2021). The Roles of Waqf for Sustaining Well-Being During Covid-19 Pandemic: Empirical Evidences from Indonesia. *The 5 Th Annual Islamic Finance Conference (AIFC)*, Jakarta (pp. 29201).