

A Sequential-Explanatory Study on the Financial Literacy of Women Farmers in Ilocos Sur

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ABSTRACT

Women farmers are underrepresented in Philippine society. Their existence and hard work are often disregarded and undervalued. This is apparent in localities where agriculture is the leading source of income. This sequential-explanatory study inquired about women farmers' financial literacy level and lived experiences in four municipalities in the 1st District of Ilocos Sur, where most women farmers are located. The study utilized a problem-solving test and survey questionnaires to determine the literacy level of women farmers in terms of knowledge, attitude and behavior, and skills. At the same time, a semi-structured interview was done for the qualitative aspect of the study. Frequency and percentage, mean, and thematic analysis were used to analyze the data. Results showed that women farmers exhibited low financial knowledge and skills and a high financial attitude and behavior, resulting in an average financial literacy. Challenges influenced by their low financial knowledge and skills were due to environmental and social factors. Meanwhile, their high financial attitude and behavior positively impacted their lived farming experiences. Moreover, their exposure to selling, budgeting, saving, and engaging with banking institutions contributed to their average financial literacy. Therefore, the study recommends programs and training implementations by the government to improve the farmers' financial literacy further and empower women farmers.

Keywords: Agriculture, financial literacy, mixed-methods, sequential-explanatory, women farmers

INTRODUCTION

Agriculture is a beacon of hope for Filipinos, it is the primary source of income and livelihood for many Filipino families living in rural areas. In a Filipino household, there are certain roles one must partake in which are upheld by the country's conservative beliefs and patriarchal system. Induced by this system, women who often

attempt to make ends meet are undervalued especially those women who have laborious careers that are male-dominated such as farming.

In relevance to the case of the Philippines, financial literacy among Filipinos presents an unusual yet intriguing scenario. As relayed by the Asian Development Bank (2017), the country is deemed to have the largest reverse gender gap in terms of financial literacy which means that women in the Philippines prevail to be more financially literate than men. This opposes the findings of most developing countries that women, in reverse, display lower financial literacy than men (Hasler & Lusardi, 2017). Despite this interesting case, the findings of Bangko Sentral ng Pilipinas (2021) unfortunately reported an alarming issue among Filipinos exemplifying that only 2 in 10 Filipinos scored 100% on basic financial literacy questions, while 7 in 10 correctly answered at least half of the questions.

Moreover, Centino et al. (2022) mentioned that 77% of Filipino women farmers are married and all of them only had a high school level of education but despite these conditions, women farmers are still significantly contributing to the field of agriculture. It is manifested in the study that 78% of women farmers are actively participating in farm decision-making. Proven by this, women farmers, even under unfortunate circumstances, still play a vital role in planning and providing their expertise in daily farming operations. In addition, most residents in rural areas are high school graduate married women who are also members of farmers' associations (Duquinal et al., 2020a, 2020b) and some of them are doing other farming-related activities like buri weaving (Unciano et al., 2023). Their conditions as farmers seem far from satisfactory (Talbo, 2020).

Women farmers and their vast contributions to agriculture are not only limited to a specific locality, it goes beyond. The United States Department of Agriculture (2021) notes that women farmers have been a pivotal part of farming management and livestock operations across the globe for centuries but it is only these present times that women in agriculture are allowed to make a name for themselves in this industry. Consequently, Fremstad et al. (2020) emphasized that even when the agriculture industry relies on women farmers, their contributions continuously become invisible to the academe and social world.

Therefore, this study warrants further investigation to highlight and empower the contributions that women make to the Philippines' agricultural industry. Additionally, because there has not yet been a great deal of research on the topic of financial literacy among women farmers, this study would be able to shed light on the particular situation of the Philippines' odd reverse gender gap and the financial literacy of women farmers.

Through quantitative and qualitative approaches, the financial literacy of farmers in specific municipalities within District 1-Ilocos Sur such as Magsingal, Sto. Domingo, San Juan, and Sta. Catalina are assessed to probe into the underlying context behind their test scores which eventually contributed to an in-depth comprehension of the current status of women farmers' financial literacy case in the Philippines.

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Ilocos Sur, a province in Region 1 is known for agriculture. It produces different crops like rice, corn, onions, garlic, tobacco, etc. Known for its agricultural contribution, it is where RA 7171 (Tobacco Act) was formulated.

The article sheds light on a critical issue often overlooked in Philippine society- the underrepresentation, disregard, and under evaluation of women farmers. This sequential-explanatory study focuses on the financial literacy levels and lived experiences of women farmers in the first District of Ilocos Sur, providing valuable insights into an often marginalized demographic

Lastly, this study aims to gauge the financial literacy level of women farmers based in the four municipalities of District 1- Ilocos Sur which can be the foundation for future researchers in conducting studies in line with the financial literacy of farmers within a locality. Consequently, this study will delve into the lived experiences of women farmers as a way to gain a rationale regarding the justification behind their current financial literacy level to gain a more holistic perspective.

The provincial government of Ilocos Sur will be aware of the financial literacy of women farmers, which may lead to the development of appropriate programs and projects empowering women farmers. This will also help the UNP community to conduct necessary extension activities related to finances that may help farmers, particularly women

Objectives of the Study

This study aimed to determine the financial literacy of women farmers in the First District of Ilocos Sur, Philippines. It specifically sought to determine the financial literacy of women farmers in terms of financial knowledge, financial attitude and behavior, financial skills, and their lived experiences based on their financial literacy.

METHODOLOGY

This portion includes the research design, population, instrument, procedure and data analysis of the study.

Research Design

The study integrated a sequential-explanatory design to be able to gauge and generate the levels of women farmers' financial literacy, specifically in terms of financial knowledge, financial attitude and behavior, and financial skills. In addition, it was incorporated to be able to explore and explicate the various and distinct factors that may give way to the aforementioned quantitative information.

Participants of the Study

The participants of the study were selected through two-stage cluster sampling. Ten (10) women farmers, who have been farming for at least five years, were chosen from each of the municipalities of Magsingal, Santo Domingo, San Juan, and Sta.

Catalina in the First District of Ilocos Sur, through quota sampling. The First District and the four municipalities were considered since there are more women farmers located here and there are more different crops planted than the other municipalities. Moreover, one (1) participant per municipality was selected for the interview part of the study through purposive sampling. Data saturation was considered in the qualitative part of the study as a reason for having only four participants in the interview.

Data Collection and Instruments

The research instrument utilized throughout this study is a problem-solving test method comprising questionnaires adapted from the Consumer Response Annual Report (2018), OECD (2011), and Stella et al. (2020) that relate to the situations of women farmers. The problem-solving test was used to determine the financial literacy of women farmers. The data acquired through this study have been used to ascertain the financial literacy of women farmers in District 1- Ilocos Sur. After a thorough analysis of the numerical data, the study then conducted an in-person, semi-structured interview for the qualitative part of the study, which was recorded through the phone for transcription purposes. The interview served as a way for the researchers to understand the personal, lived experiences of women farmers in their localities. The qualitative data have been analyzed through the use of Caulfield`s Thematic Analysis 2020. After inter-coding the interview under Caulfield`s Thematic Analysis, the researchers went back to their respondents to further verify the transcripts. The researchers then continue the succeeding process of coding, generation of themes, and theme reviews. In line with this, the researchers asked for the assistance of an expert intercoder to check the interpreted codes and themes procured from the interview transcripts. Sample verbatim responses from the interview were translated in English with the help of a language expert.

Analysis of Data

The data gathered in this study were analyzed and interpreted using frequency and percentages, and mean. The qualitative data were analyzed through the use of Caulfield`s Thematic Analysis 2020.

Ethical Considerations

Research ethics were strictly considered in the conduct of the study in which the privacy and confidentiality of data and the anonymity of the respondents are prioritized. There were no conflicts of interest in the study.

RESULTS AND DISCUSSIONS

The Financial Literacy Level of Women Farmers

The financial literacy of women farmers was determined through their financial knowledge, financial attitude and behavior, and financial skills.

Table 1

The financial literacy level of women farmers in district-1 Ilocos Sur

Financial Literacy	Mean	Interpretation
Financial Knowledge	1.70	Low
Financial Attitude and Behavior	3.95	High
Financial Skills	1.88	Low
Overall Financial Literacy	2.51	Average

Legend: 4.01-5.0 (Very High), 3.01-4.0 (High), 2.01-3.0 (Average), 1.01-2.0 (Low), and 0-1.0 (Very Low)

The women farmers in the selected municipalities in Ilocos Sur mentioned locale have Average Financial Literacy. The Philippines displays a fascinating case of the “reverse gender gap” as it is deemed to have the largest reverse gender gap in terms of financial literacy which denotes that Filipino women are proven to be more financially literate than men (Asian Development Bank, 2017). According to the World Bank (2018) 37.9% of Filipino women are most likely to open a formal account in financial institutions compared to 24.4% of Filipino men which signifies a gap of 13.5%. It is safe to deduce that women are more financially capable than men since they are more inclined to open an account in banks using their name. This improving financial awareness of Filipino women is empowering the increasing financial literacy of women farmers.

Furthermore, the involvement of women farmers in the Philippines in dealing with the management of household expenses signifies their authority and control in finances as proven by the study entitled: “Women’s Empowerment and Gender Equity in Agriculture: A Different Perspective from Southeast Asia.” (Akter et al., 2017). Consequently, all of these findings correspond to the interpreted data above which implies that women farmers in District 1 are indeed financially literate at an average level.

Financial Knowledge

It is then reflected in the table that the financial knowledge indicator of women farmers' financial literacy has a mean of 1.70. Hence, the computed mean suggests that women farmers display “Low Financial Knowledge” in the areas of numeracy, understanding inflation, and risk diversification.

More so, as a consequence of the lack of financial education among farmers, financial literacy studies of Safitri (2021), Agarwal et al. (2014), and Ravikumar et al. (2013) insinuates the suggestion of having programs and training implementations by the government as a structured promotion of farmers' financial literacy. Exposure and objective mastery of varied financial definitions, terms, and key concepts by women farmers, therefore, is an area that needs to be refined and improved concerning the Financial Literacy of Women Farmers in District-1 Ilocos Sur, Philippines.

Financial Attitude and Behavior

The financial attitude and behavior indicator of women farmers' financial literacy has a total mean of 3.95 indicating a high level of financial attitude and behavior.

Similar findings were found in the study of Herdjiono et al. (2018) that women farmers have much higher rates in terms of their financial attitude and behavior whereas women tend to organize money as a basis for obsession, retention, inadequacy, and effort. About this, women farmers with lesser educational attainments, exhibit more favorable financial behavior (Safitri, 2021).

Financial Skills

It is indicated in the table that women farmers have a mean of 1.88 which is interpreted as Low Financial Skills.

The Low Financial Skills of the respondents demonstrated the numerous factors affecting their roles and contributions to the nation's agriculture sector and economy. The result corresponds to Cuffley's (2021) and Esmero's (2018) findings that the factors that can contribute to the perceived lower financial skills among women farmers include limited access to resources and information; gender inequality which results in the restriction of women's access to education, training, and decision-making opportunities, including financial management; and lack of control over resources.

The Lived Experiences of Women Farmers based on their Financial Literacy

There were three major themes generated on the lived experiences of women farmers based on their financial literacy, which is the positive application of women farmer's financial literacy on lived farming experiences, challenges of women farmers in farming, and determinants of the challenges of women farmers in their livelihood.

Positive Application of Women Farmer's Financial Literacy on Lived Farming Experiences

Respondent A mentioned that their financial literacy level contributes towards the better selling process of varied crops and their ability to manage its sales. Women farmers' financial literacy level has contributed to their ability to ensure and track that there will be profit during the crops selling process. Findings of Xu, et al. (2023), have found that financial literacy and the income of farmers were seen to have a profound

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association. Hence, better and improved financial literacy plays a more significant role in the selling and income growth of farmers.

"I am listing down all the expenses in our farming, especially the farming products that we utilized and the compensation of the workers, including their snacks."

Women farmers indulge themselves with budgeting techniques throughout the entire farming process as well. The respondent mentioned that their financial literacy level helped them to be well-versed in budgeting practices such as the process of allocating their earnings, and listing expenses for farming products, wages, and food expenses. It was revealed by other studies that farmers in Ghana indulge in budgeting practices. Practices ranging from the act of monitoring their expenditures, setting aside funds that could cater to their farming expenses, and maintaining expenditures within the set limit are being observed by Ghana farmers (Ngina, 2020). The said findings just prove that budgeting practices and the behavior of farmers are broadly and still widely performed in farming.

"What we do as farmers when we need fertilizers and other farming needs is asking for loans for the sake of our family and our crops."

Borrowing money to obtain the need of having cash is being carried out by women farmers. The respondent mentioned that knowing when to ask for financial help and when to borrow money is executed only especially if the crops' primary source of funding is inadequate. It shows that loan repayments in farming are hugely considered by women farmers. As procured from the study of Girma (2021), there is a strong association between financial literacy and loan repayment, hence, when there is higher financial literacy, there is a high likelihood that loan repayments will be made. Thus, knowing when to ask for financial help is a product of the respondents' financial literacy level.

"I learned how to save money."

Moreover, a respondent also insinuated that their financial literacy level encouraged them to develop money-saving behaviors. As such, it can be induced that financial literacy and money-saving behavior are related to one another. This can be proven and shown by the findings of Widjaja, et al. (2020) that financial literacy has a relationship, both directly and indirectly, on saving behaviors.

Women farmers also conduct transactions in banking institutions. The positive application of financial literacy to actual farming experiences includes women farmers' engagement with financial institutions like banks. Conducted study by Tchewafei, et al. (2020) showed findings aligned with farmers' behavior and engagement towards banking institutions. Since farmers in general have poor financial literacy, engagement towards banking institutions is not even considered as they cannot access something

they do not know. However, in this study, some respondents were able to engage themselves in banking institutions, especially since few women farmers in the financial knowledge of the quantitative findings of the study were rated to have Average Financial Knowledge. Though, in general, farmers have poor financial literacy, there are still a few farmers who have displayed high financial knowledge and behavior toward the utilization of finances.

“I am working at our Barangay Center in our community.”

“It is Statistics that influenced my knowledge in finances.”

Women farmers, in particular, are able to display mathematical competencies as well as an array of proficiencies in the various tasks that their respective barangay centers give them. Women farmers go through farming practices in which they make use of their Average Financial Literacy which comprises their financial knowledge, financial attitude and behavior, and financial skills. In the agricultural setting, positive applications of lived farming practices by women farmers were being carried out as a result of their Average Financial Literacy, especially in the midst of selling, budgeting, saving, borrowing money, and their engagement with banking institutions.

Challenges of Women Farmers in Farming

Respondent A implied that responsibilities on the farm as well as the provision of educational support to their children burden them so much. This means that child-rearing and farming for the respondents are clashing responsibilities for women farmers. The struggles of women farmers could include clashing responsibilities in farm and household like the experience of respondent A. This conforms to the study of Tamang et al. (2014) that while women have increased their period of work in agriculture, they have to complete their other household and off-farm work as well which means they have a compounded burden of productive and reproductive work. Due to their low financial knowledge and skills, women farmers struggle with responsibilities that include managing expenses in households and farms. These multiple responsibilities commonly result in conflicts among these that were found to be one of the challenges they face.

“I am struggling with balancing a heavy workload in the field and doing financial-related stuff.”

The respondent meant that the heavy work in farming and financial practices in the household are rigorous. This experience of Respondent B insinuates that work and life are not bounded, they may be mixed which causes difficulties and disorientation as influenced by their low financial knowledge and skills. This finding is supported by the conducted study by Sundaresan (2014), that work-life imbalance among working women is due to competing pressures of work and demands at home. Working women frequently have to deal with responsibilities related to their social

circle, in-laws, parents, kids, and the home. This contributes to the imbalance between work and life and may cause conflict. As a result of their low financial knowledge and skills, managing the finances of the household, which is one of the main roles of women, caused more problems for them as this can be associated with both farming (work) and managing the household (life).

“There is indeed a difference in the treatment between men and women farmers, especially when we are talking about physical differences. Because in farming, there are a lot of heavy tasks that women farmers can also do.”

In the agricultural setting, most women farmers are often associated with lower levels of physical capacity. Most argue that this gap, as opposed to their male counterpart, results in lower productivity or an inability to respond to economic incentives. A study conducted by Ekerebi and Adeola (2017), stated that men farmers have higher household assets and higher harvest value than women farmers. According to a World Bank study in 2015, as stated by Rural 21, since women have limited access to credit, productivity on their farms is lesser than on male-ran farms at 44% on average.

“Loan here, loan there. That is how you get affected by the hardships in dealing with your finances.”

Small-scale farmers rely on loans from banks or private money lenders to sustain and regulate their farming practices. In the research study of Paul (2019) regarding community-supported agriculture in the United States of America, a farmer respondent stated that the reason why they had to take out loans often is to pay for everything. This includes both farming and personal needs. Moreover, farmers are particularly concerned about operating loans, which are sums of money borrowed to fund farming activities during the season.

Furthermore, according to a research study conducted by Agarwal (2014), due to the government's inability to develop and execute pro-poor policies for the vast majority of small farmers who depend on agriculture for their livelihood, farmers are losing their trust in it, resulting in their reliance on loans. The study also stated that most farmers take out loans either from banks or private money lenders. However, banks only accept farmers who are capable of repaying the loans on time. This is a recurring problem for small-scale farmers who only rely on agriculture as their source of income. As a result, these small farmers turn to private money lenders, who conduct verbal negotiations. Since the money acquired from private money lenders have significantly high interest rates, some farmers had to pay these loans until their deaths.

Determinants of the Challenges of Women Farmers in their Livelihood

Respondent A emphasized that their inadequate source of connections and lack of engagements related to finances is indeed an incentive in shaping the struggles they encounter all throughout their lived experiences as women farmers. This denotes that women farmers faced ordeals in their livelihood due to their lack of connections and engagements in financial matters. Moreover, contributes to women farmers' lack of

access to land, deprivation of equal treatment, appropriate working conditions, and decreased productivity which aggravates the challenges they grapple with in their livelihood and farming practices.

“I do not have connections, especially with people that are great in dealing with finances.”

This conforms to the study of Duckett (2019) regarding the gender-specific obstacles that women farmers encounter in their farming practices and livelihood. The lack of access to land, financing, markets, agricultural training, education, suitable working conditions, and equal treatment put female farmers at a significant disadvantage before they ever plow a field or seed. It implies that women farmers are forced into an array of challenges induced by their lack of financial connections and ties due to gender bias and double standards. Furthermore, according to a study by the World Bank, as stated by Rural 21 (2015), women have restricted access to credit and it is highly more difficult for them to hire farmhands. This phenomenon has decreased the productivity of women's farms which averages 44% less than male-dominated farms.

“I am the spouse so it is expected that we mostly do the budgeting.”

Derived from one of the respondents, women farmers are typically engaging themselves in managing household expenses. This states that women farmers are expected to engage themselves in handling financial management in their households due to gender roles imposed by society. This is connected to the study of Laff and Ruiz (2022) that regardless of the influence of physical differences between men and women in the existence of gender roles, the attitudes, and presumptions associated with gender roles are not primarily based on any inherent or natural gender differences but on gender stereotypes.

Women farmers who are also wives are most likely to exert themselves in budgeting practices due to preconceived notions about their societal roles. This claim is in line with a study by Eagly and Wood (2016) on how men and women are contrastingly distributed into social roles due to the fact that certain activities are efficiently accomplished by one sex or another which depends on society's circumstance and culture. Additionally, corresponds to the Social Role Theory which argues that behavioral differences between men and women can be attributed to cultural standards and expectations about gender rather than to biological factors (American Psychological Association, n.d.).

“Because my mom is selling a variety of vegetables such as Sweet Potatoes and White Beans.”

“I am farming because my father passed it down as a career.”

“The one who made me realize why I chose this as a job is because my father is also a farmer.”

Reiterated by one of the respondents, the farming career as a woman farmer

was an upbringing passed down by the parents' involvement in farming practices and selling crops which left her with no choice but to settle with this path and not explore other options. It can be implied that the majority of women farmers were urged to work in the aforementioned field without having their own autonomy and choice to choose for themselves. Corresponding to the study of Carodan (2016), most women farmers were motivated to engage in agricultural practices because of the influence of their parents as they felt the urgency to provide for their family.

This passed-down career path by parents has influenced the wide-ranging problems that women farmers face in their livelihood such as the lack of diverse career options, and their ability to decide for themselves and explore other career paths that are high-paying or profitable. According to the aforementioned study, some of the parents who are also farmers perceive that the field of agriculture is unable to provide a fulfilling life. Henceforth, this compromises the productivity of women farmers as they lose their motivation in accomplishing farming practices due to the inequalities they face in this career.

"Maybe one of the factors that affected my knowledge in terms of finances is my educational attainment considering that I'm only a high school graduate."

The majority of the respondents had a common ground of varying educational attainments. A lot of them only finished high school and did not go to college. Educational attainment is a factor in affecting the challenges women farmers encounter in their livelihood. This is aligned with the results and findings of the research conducted by Baihaqqy et al. (2020) which states that there is indeed a correlation between the levels of education and their current financial literacy level. The higher the level of education achieved, the more knowledge is attained. In short, the level of a woman farmers' educational attainment is a reflection of their financial literacy level.

As mentioned by the respondents, their highest educational attainment is becoming a "high school graduate". It can be deduced through this that women farmers have low attainment in terms of their educational achievements which is caused by socioeconomic factors due to the impoverished households they live in. Corresponding to this, a study by Lusardi and Mitchell (2014) stated that someone with a low level of financial literacy is primarily connected with low income, low education, and low wealth.

Women farmers and their low level of educational attainment have indeed contributed to the challenges they face in their livelihood and financial engagements. Educational attainment refers to the ability to obtain technological advances and financial information related to price. Thus, a low level of education adversely affects their financial knowledge which eventually causes problems in their agricultural livelihood as women farmers (Ninh, 2020).

"Sometimes, there is no production of crops and at the same time, the prices of commodities like pesticides and gasoline that crops need all the time are high."

One of the respondents highlighted that expensive farming necessities determine the challenges they encounter as low-income women farmers in their livelihood. This phenomenon is defined as “Inflation” where there is an increase in the price of necessities. Procured to an excerpt in the Manila Times (Cariaso, 2022), one of the Farmers’ groups in the Philippines claimed that a high inflation rate will demolish the agriculture sector because of an increase in raw materials, adding it will result in to decline in demand, and it will affect the purchasing power of consumers. This rising cost of living consisting of the increasing price of goods and services is an obstacle to women farmers in profit generation which can lead to food inflation which is detrimental for both farmers and consumers (Brigantino, n.d.). Taking into account that the majority of women farmers are only high school graduates, hence their low financial knowledge, this affects their competency in fully comprehending the concept of inflation.

According to a study on the poverty line in the Philippines, 41% of urban households are observed to be below the poverty line and the number of poor households increased by 10.63% as inflation increases rapidly (Fujii, 2011). Therefore, women farmers and their lack of financial knowledge regarding inflation shape the problems that women farmers encounter in their livelihood as they navigate through poverty.

The determinants of the challenges of women farmers project a notable impact on their livelihood and career. In line with this, the array of the determinants that are extracted from the data gathered from the respondents comprises the following: lack of connections, marriage roles, family influence, educational attainment, and inflation. Women farmers are deprived of connections and ties in the aforementioned field. This contributes to women farmers’ lack of access to land, deprivation of equal treatment, appropriate working conditions, and decreased working productivity. Therefore, it is safe to conclude that the low financial knowledge of women farmers in District 1-Ilocos Sur is directly influenced by the determinants of the challenges they encounter in their livelihood and farming practice.

CONCLUSIONS

Most women farmers have proper discipline about their financial attitude and behavior, however, the full potential of women farmers to engage in financing-related practices of the entire farming process is constrained by their lack of financial knowledge and low financial skills. Throughout the course of their farming careers, women farmers had to deal with difficulties and challenges that were not solely attributable to their lack of financial knowledge and low financial skills, but also to environmental and social determinants. Therefore, though positive applications of lived farming practices by women farmers were being carried as a result of women farmers’ “Average Financial Literacy,” especially while selling, budgeting, saving, and borrowing money, improving their financial knowledge and financial skills alone does not guarantee that women farmers financial literacy will improve.

RECOMMENDATIONS

Programs and training implementations on financial literacy and farming by the government should be encouraged as a structured promotion for the betterment of farmers' financial literacy, especially for empowering women farmers. Another study should consider a larger scope of the locale of the study. A quantitative study about the association of environmental and social determinants to the financial literacy of women farmers and considering other variables is highly encouraged, especially since financial knowledge, financial attitude and behavior, and financial skills as indicators are not solely its contributors.

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