

ORIGINAL ARTICLE

## Training in technological tools and performance of employees of a microfinance institution

### ABSTRACT

The objective of this study was to identify the most appropriate training program in different software tools for employees of the commercial department of Compartamos Financiera S.A. in the regions of East Lima, Southern Lima, and Piura. The research was carried out during 2022, taking into account the latest trends and technological progress that influence this process. The data collection instrument used was a questionnaire, prepared with Google Forms, which consisted of 25 questions on a Likert scale. A total of 232 surveys were collected from a total of 250 employees. Internal consistency was determined with Cronbach's alpha, and the relationship between the two variables was established by Spearman's correlation hypothesis tests and Pearson's chi-square test. The aforementioned tests found a positive relationship between the variables *training in technological tools* and *performance of employees* of the commercial area of Compartamos Financiera S.A.

**Keywords:** technological tools; Moodle, virtual training modalities.

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## INTRODUCTION

The financial sector has been digitized at an ever-increasing pace with a variety of apps, e-wallets and software that allow users to carry out their financial transactions in a short time and at their fingertips through their mobile devices.

In times of digital transformation, there is increasing talk of 100% digital banks and the projects that have been launched in various countries. It is often highlighted that one of their advantages is that, through technology, they can offer a variety of financial products and services at low costs, because they do not require physical infrastructure—there is no need to go to an office or agency—and, due to these characteristics, they contribute to financial inclusion. (Superintendencia de Banca, Seguros y AFP [SBS] 2020, p. 1)

Digital transformation includes fintech companies and startups, about which Orzanco (2018) mentions the following:

They have made it possible to cover market spaces that could not be reached by banks, thus speeding up and providing new possibilities for economic development. Sectors such as the base of the pyramid are being offered services that traditional banking did not have, due to their operating costs versus the available economic capacity. It is feasible that traditional banks pay attention to these unbanked sectors with a service offer where competitive partnerships with fintech companies may be the fastest and most efficient link, but so far this has not materialized. (pp. 117-118)

In recent years, the fintech industry has acquired a large number of clients that had been neglected by traditional institutions in Latin America. Now, faced with the uncertainty and economic changes in the region as of 2023, the sector will seek to improve its risk management practices and use more analytical tools to stay ahead with respect to the following relevant issues: customer management, financial inclusion, and

risk reduction. (Business Empresarial, 2022, para. 3)

With this study, the aim is to contribute through an optimal training plan for the universe of new technologies, and that this plan may have a positive impact on employee performance. However, this will only be possible if the training program is adequate, and the deployment is not simply carried out to meet a training department indicator. According to Cortés and Peña (2021), this will be achieved through:

The preparation of a diagnosis: This helps determine that one of the characteristics generated is the coordination and coherence that must exist between the objectives of the organization's different departments and the human talent department, in such a way that they aim in the same direction. The organizations' training plans should have a detailed description of the target population, scope, execution time, budget and specific measures on its quality, so as to be able to present improvements in the efficiency and effectiveness of the employees' performance that result in the fulfillment of the organization's objectives. (pp. 89-90)

Technological advancements in the financial sector are fast-paced and constantly changing, which is why financial institutions must periodically analyze their clients' behavior, since the introduction of technology is very fast and competitive. Jorge Del Castillo, senior principal consultant at FICO, mentions that:

It is important for the millennial generation in Peru, in terms of digital financial means, to offer them security without bureaucracy or friction. He also comments that the potential unbanked market in Peru is estimated at eight million people as of 2020, of which 69% are willing to do an identity test, 48% are willing to do a residence test, and 47% are willing to do a biometric registration. Nearly 70% prefer to send electronic documents if they perceive the application to be secure, and less than half are willing to undergo a residence

verification or have a biometric registration. (Canal Mibanco 2020, 20m 48s)

Sandoval (2018), in his research work about the implementation of core banking at Banco de Comercio, mentions the following:

Core banking influences the bank's development, taking into account that the development of a platform combines communication technology and information technology to meet the needs of both the business and the banking industry, responds to various factors such as hardware and software obsolescence, changes in business requirements, and misalignment in the integrity and availability of information, which increases operational risk, among other factors that hinder full customer satisfaction. (p. 85)

Likewise, Pérez *et al.* (2022) state the following in their article:

In the improvement of the processes for introducing technological innovation, after having conducted interviews with senior company managers, the subject of this research, and noting that the process of introducing new technologies cannot be isolated from human talent management, it was possible to identify five important factors in the process of introducing technological innovation: human resources policies, competency-based management, motivation, leadership, teamwork, and communication. (pp.41-42)

### **Training in technological tools**

In 2020, the lockdown resulting from the COVID-19 pandemic became an additional factor, requiring financial institutions to speed up the training process on new technologies, using online learning as the main means to train their employees. In their research work, Cangahuala *et al.* (2019) state: "the first opportunity found addresses interactive learning, through which technology can bridge the digital divide, which is a great opportunity to offer an inclusive education" (p. 34).

Likewise, Gómez *et al.* (2020) mention the following:

As a result of the situation resulting from the declaration of a healthcare emergency due to COVID-19, formal companies have identified the need to leverage technology for their positioning and growth. However, current services are lacking integration and there is a need to strengthen companies' human talent to adapt their operations or processes, and organizational strategies to the use of technology typical of the current digital trend. (p. 2)

To carry out the digitization of a company's internal processes and the training of employees in new technologies, companies need to invest. But how can this investment be justified? It will thus be necessary to demonstrate that this technology training process will have a highly positive impact on employee performance.

The technology investment effort should ultimately seek greater satisfaction in the service provided to customers and, at the lowest possible cost, achieve customer loyalty through interactive, inclusive, contact-intensive businesses that do not necessarily require the customers' presence at one of the branches or offices. (Caiafa 2012, p. 71)

Highlighting the importance of technology in employee training processes, Chiavenato (2020) states the following:

No single factor has more influence on training and development than information technology (IT). Computers and the Internet profoundly affect all business functions and change the way knowledge is disseminated. In this new era, this change is continuously evident. (p. 360)

Ron (2013) provides the following advice:

Conceiving training as a tool for the improvement of the microentrepreneurs' daily activities is achieved through a hands-on program and a participatory methodology, which seek to help microentrepreneurs to develop concepts based on their own experiences. (p. 102)

Since 2020, many of the employees in the financial sector have had to work from home due to lockdowns and the provisions of the government under Peru's state of emergency, since people could only "circulate on public ways for the provision of and access to essential services and goods, as well as complementary services including those related to financial institutions, insurance, pensions, along with complementary and related services that ensure their proper functioning" (Decreto Supremo N° 044-2020-PCM, art. 4, g). For this reason, the training provided since then has been carried out in virtual mode, mainly by means of videoconferencing. In this regard, Álvarez (2020) mentions the following:

Videoconferencing is a two-way simultaneous audio and video communication; it is synchronous and allows real-time communication with groups of people who are located in different places. Videoconferencing tools are used by companies in their meetings. In the case of education, it allows holding classes in a virtual or blended mode. (p. 43)

It should also be considered that virtual environments and the development of a teaching program should have a constant evaluation. Such evaluation should also include some criteria that allow continuous improvement and measurement of teaching indicators. Roncancio's (2019) general conclusion of the study made evident that "the virtual teaching-learning environments offered by Universidad Santo Tomás de Bucaramanga could be evaluated by applying LORI system criteria, which are as follows: high-quality content, content adequacy, feedback, motivation, design and presentation, accessibility and reusability" (pp. 260-261).

At present, it is important for an adequate training program to make use of the new training modalities, using the mobile learning method, which is one of the new trends in virtual training. "Although all virtual training modes have specific characteristics, they pursue the same objective: the training and development of competencies among participants" (Bautista, n.d., para. 4).

## **Performance**

The problem faced by companies in the financial sector is that, in their banking digitization process, employees, especially in the microfinance sector, do not always have the necessary technological skills. For example, in her research on mobile banking within Banco de la Nación, Rodríguez (2019) states that "the regulatory framework implemented by the bank was not very well known to the respondents in the research, considering that they are the ones who interact with the end customers" (p.62). Moreover, she found that respondents did not understand the difference between mobile banking and mobile wallet.

On the other hand, Gimeno (2010) concludes the following:

ICTs (information and communication technologies) are the cornerstone of progress in the most advanced societies and are an essential element for improving productivity, innovation and competitiveness. Their implementation and development contribute decisively to the transition to an information and knowledge economy, which is what characterizes economic development in the twenty-first century. (p. 148)

Employees who are fully aware of the functions of the position they hold will contribute positively to the effective and efficient achievement of work goals and objectives. Therefore, organizations must carry out a diagnosis and establish the differences between what someone should know to perform their job, and what they really know, in order to develop plans and programs to train their employees, so that they can rely on human potential that is knowledgeable and proficient in the activities of the position they hold and the potential cadres to assume them in case of contingencies. (Bertolotti 2019, p. 82)

For this reason, employees in the financial sector must be constantly trained in new technologies in order to keep and improve their performance. In this regard, Alles (2017) considers that "Both knowledge and skills are necessary

to perform any type of work. Knowledge must be present. However, successful performance will only be possible when, in addition, the competencies required by the position are present" (p. 58).

## METHODS

The research method is quantitative instrumental and applicative because it occurred after the training was conducted. It is also explanatory because the data collected has not undergone any kind of modification. Regarding the study population, an entity of the financial sector was chosen, a transnational company focused on the microfinance sector. The study population was made up of a sample of 232 employees in its business area, and a survey was carried out in June and July 2022. The unit of analysis was chosen on the basis of three geographical regions the financial institution had access to and the financial institution's permission for: Piura Region, Eastern Lima, and Southern Lima.

The instrument used was a survey. First, a pilot survey was used and then a final survey with a Likert scale with 25 questions to which 5 values were assigned, where the lowest value was "strongly disagree" with 1, and the highest value was "strongly agree" with 5.

The general hypothesis test determined that the level of significance was less than 0.005. In addition, regarding the reliability of the instrument, a Cronbach's Alpha coefficient of 0.919 was obtained: its value generally falls in the range between 0 and 1, with a value equal to or less than 0.6 generally indicating unsatisfactory reliability with respect to internal consistency (Malhotra, 2008). Validity is the degree to which an instrument actually measures the variable it seeks to measure (Herrera, 1998). Also, for the Kaiser-Meyer-Olkin measure of sampling adequacy, a coefficient of 0.917 was obtained, which means that the research has excellent validity (Herrera, 1998).

## RESULTS

The general and specific hypotheses were compared and were as follows:

- **HG (general hypothesis):** Training in technological tools has a significant impact on the performance of Compartamos Financiera S.A. employees.
- **HE1 (specific hypothesis 1):** Competencies have a significant impact on Compartamos Financiera S.A. employees.
- **HE2 (specific hypothesis 2):** Technological tools have a significant impact on Compartamos Financiera S.A. employees.
- **HE3 (specific hypothesis 3):** The training mode has a significant impact on Compartamos Financiera S.A. employees.

Two statistical tests were applied to carry out the comparison: Pearson's chi-square test and Spearman's correlation test. For all hypotheses, a sample size of 232 surveyed employees was considered.

Regarding HG, a value of 50.862 was obtained with a significance level equal to 0.000, below the critical significance value of 0.005. Therefore,  $H_0$  (null hypothesis) is rejected, i.e., the hypothesis that training in technological tools does not have a significant impact on the performance of Compartamos Financiera S.A. employees.

With respect to HE1, a value of 5,309 was obtained, with a level of significance equal to 0.994, which is above the critical significance of 0.005. Therefore,  $H_0$  (null hypothesis) is accepted, i.e., the hypothesis that the competencies dimension does not have a significant impact on the performance of Compartamos Financiera S.A. employees.

On the other hand, for HE2 a value of 74.400 was obtained with a significance level equal to 0.000, which is below the critical significance of 0.005. Therefore,  $H_0$  (null hypothesis) is rejected, i.e., the hypothesis that technological tools do not have a significant impact on the performance of Compartamos Financiera S.A. employees.

In addition, for HE3 a value of 44.444 was obtained, with a significance level equal to 0.000, which is below the critical significance of 0.005. Therefore,  $H_0$  (null hypothesis) is rejected, i.e., the hypothesis that training modalities do not

have a significant impact on the performance of Compartamos Financiera S.A. employees.

These results are shown in Table 1.

## DISCUSSION

The results obtained up to the preparation of the article show that there is a relationship between training in technological tools and employee performance. However, no relationship was found with the competencies dimension.

Regarding the first dimension, competencies on the performance variable, it was found that there is no significant difference regarding the influence of the competencies dimension on the performance variable. Nevertheless, the indicators considered for this first dimension were: knowledge on the use of technological tools, experience in the use of these tools, and attitudes or willingness to use them.

This result differs from the one obtained in a study by Rodriguez (2014), where she carried out some research and applied the competency-based training method, finding the following:

The results of the group supervisor assessments are very disparate. Group supervisor 1 has an outstanding performance or rank and, due to his score (96), he is the company's best worker. Group supervisor 2 has several deficiencies, i.e., the level of his competencies is below the required standards and, because of this, his performance is not optimal. Group supervisor 3 presents an above-average rank with some competencies requiring improvement, which means he must undergo training and improve his performance even more. (p. 60)

Thus, the author states the following:

As this is the first time that this method is applied in the company under study, while the traditional job analysis focuses on work elements, the competency assessment studies the people who keep a successful performance in their position, and defines the job based on people's characteristics and behaviors. (Rodriguez 2014, p. 65)

Regarding the second dimension, technological tools on the performance variable, a significant association was found between the two, which is consistent with research conducted by Sandoval (2018), who mentions that "the implementation of a new core banking system at Banco de Comercio implies a new job that requires a very different and wider range of skills, both technical and organizational" (p. 87).

This also agrees with findings by Bertolotti (2019): "the different training modalities have been factors that have had an influence on improving the work performance of employees" (p. 96).

These results are related to Roncancio's (2019) virtual environment assessment research work, where he explains the following:

For accessibility of virtual learning environments (EVEAS), in this criterion it is important to consider the design of controls, the presentation of information, whether it is adapted to people with disabilities and to access from mobile devices. Out of the three roles used for this analysis (students, teachers, and experts), some rate it positively and others negatively. (p. 215)

**Table 1**  
*Hypothesis test*

Hypothesis test	Chi-square	p value	Spearman's Rho	p value	Ho (null)
HG	50.862a	0.000	0.467	0.000	rejected
HE1	5.309a	0.257	1.000	0.994	accepted
HE2	74.400a	0.000	1.000	0.000	rejected
HE3	44.444a	0.000	1.000	0.000	rejected

Note. Prepared by the authors, 2023.

Also, there is a similarity with the criterion of effectiveness in research conducted by Cortés and Peña (2021), where “51% of respondents stated that the training received during induction had been effective in enabling them to perform their jobs well” (p. 70).

For the third dimension, training modes, a significant association was also found with performance. The first indicator was the e-learning mode, where 63.7% of respondents stated that they either agree or totally agree with this mode.

The results are similar to research conducted by Álvarez (2020), as one of the questions asked about the mode that best fits the respondents’ availability and lifestyle, it was found that 49% of respondents consider that a blended mode fits best (face-to-face plus virtual) while 47% consider that a virtual mode is the one that best fits their lifestyle and availability. A similar situation is found in work by Cangahuala *et al.* (2019), as “34.9% prefer a virtual mode when taking a course, and 23.1% prefer a blended mode” (p. 70).

In terms of percentage, these results differ from work done by Bertolotti (2019), “regarding the training modality preferred by Interbank employees in the city of Ica, the survey results show that only 20% prefer an asynchronous virtual training mode” (p. 87).

Finally, for the indicator m-learning training mode, 78.5% of respondents state that they either agree or totally agree with this mode, which involves connecting from any mobile device to access this type of training. For this indicator, no similar results were found in the background records studied, probably because this mode is recent, i.e., a new trend in training.

## CONCLUSIONS

This research will be useful to the scientific community in order to continue research on the digitization process in financial institutions, since advancements are not only occurring rapidly, but also technology is constantly changing, and companies must adapt their processes quickly. And this will only be possible

if employees are properly trained in the use of new financial technologies.

- Based on the results for the general hypothesis, it was concluded that there is a relationship between training in technological tools and the performance of a microfinance institution’s employees.
- Regarding the first dimension, competencies, it was concluded that there is no relationship between competencies and employee performance.
- In relation to the dimension technological tools, given the importance of their use in the employees’ field work, this dimension is indeed related to their performance.
- Finally, considering the new trends, training modalities are related to the performance of a microfinance institution’s employees.

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**Competing interests**

The author declares that there is no conflict of interest.

**Authors' Contribution**

Diana Minerva Llontop De Los Santos (lead author): Conceptualization, data curation, formal analysis, research, methodology, project administration, validation, visualization, writing (original, revision and edition).