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THE ANT AND THE GRASSHOPPER IN THE DIGITAL AGE

The narrative of the ant and the grasshopper from Aesop's fables, originating around 500 BC, remains a familiar childhood tale. Within this concise allegory, the grasshopper embodies leisure and indolence, in contrast to the ant, emblematic of diligence and discipline. The fable underscores the ant's industry, which, through its refusal to aid the grasshopper in a sarcastic retort, saying “*You sang? I'm glad; now you can dance!*” extols the virtue of toil. Remarkably, Aesop's fable presages 'Social Darwinism' prefiguring Herbert Spencer's conceptualization by 2400 years. The underlying implication that neglecting to assist a starving creature in dire circumstances suggests the removal of individuals perceived as non-contributors to societal welfare.

Significantly, Plato's 'Phaedrus,' narrating a more humanistic account of the locust, a type of grasshopper, emerged 150 years after Aesop's rendition [1]:

“It is quite improper for a lover of the Muses never to have heard of such things. The story goes that these locusts were once men, before the birth of the Muses, and when the Muses were born and song appeared, some of the men were so overcome with delight that they sang and sang, forgetting food and drink, until at last unconsciously they died.”

Plato attributes the locusts' song-induced demise not to mere indulgence or sloth but as a consequence of their profound appreciation for art, viewing their passion as a virtuous trait. While both Aesop and Plato crafted distinct characters from the locust, Aesop's portrayal of the idle figure persists today, overshadowing Plato's interpretation.

This comparison assumes significance in understanding the proliferation of

misinformation across contemporary social networks. Disinformation disseminated through these platforms exhibits accelerated propagation rates, surpassing accurate information. This phenomenon mirrors the allure of folk tales; similarly, engaging content, characterized by simplistic language, compelling visuals, and brevity, garners greater acceptance among users.

Disinformation, conveyed through these platforms, often surpasses authentic information in dissemination rates, echoing the historical allure of folklore over scholarly discourse. This phenomenon is rooted in the preference for easily consumable content characterized by its simplicity, captivating visuals, and succinctness, akin to the appeal of traditional folk tales.

Consequently, the accessibility and superficial appeal of such content alleviate the need for critical scrutiny, leading many to forego the rigorous investigation necessary to discern accuracy. As a result, a concerning trend emerges, where the ease of access and consumption supersedes the essentiality of verifying the reliability of information, perpetuating the cycle of misinformation in an increasingly interconnected digital sphere.

June 2022

Prof. Dr. Mustafa Zihni TUNCA
Editor-in-Chief

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AN EMPIRICAL INVESTIGATION OF THE EFFECTIVENESS OF HYBRID PUBLIC RELATIONS PRACTICES OF MUNICIPALITIES

Barış ŞAKAR*

* Süleyman Demirel University, MBA Graduate, barisakademik@hotmail.com, <https://orcid.org/0000-0002-1286-8937>.

ABSTRACT

Municipalities need to create a positive image by paying attention to public relations activities during their tenure as they have been elected to serve by the local residents. Continuous improvement of the service quality of the municipalities that serve mainly local people can only be possible through getting regular feedback on their public relations activities. In this research, it was aimed to investigate the efficiency of hybrid public relations efforts of municipalities. Operational success of Turunc Desk, which is a comprehensive public relations project of Muratpaşa Municipality that operates in both traditional and digital platforms has been examined. It has been analyzed to what extent the municipality's multi-channel public relations efforts meet the expectations of the residents.

Keywords: *Public Relations, Turunc Desk, Municipality, Muratpaşa.*

1. INTRODUCTION

Public relations efforts have a great responsibility in order for municipalities to introduce the services they provide and to identify the requests, suggestions and complaints of the residents. In addition, public relations, which has an important place in developing a successful corporate image and establishing good relations with all stakeholders, should get to know the citizen by using the right public relations practices while implementing all these activities, important services should be decided by taking the opinions of the citizens, and information and promotions should be made in a timely manner. Well-designed public relations activities that include both offline and online inquiries help municipalities to establish strong ties with the residents to create positive beliefs and actions in the residents.

In this study, the level of satisfaction of the local people with the Turunc Desk program, which has been carried out by Antalya Muratpaşa Municipality since 2014, in order to investigate the effectiveness of hybrid public relations activities of municipalities. In the following sections...

2. BACKGROUND

Since the aim of public relations practices in many organizations differs, depending on the type of the organization as well as their goals, missions and visions, the common view is that it is difficult to make a unique definition of the concept (Verčič et al., 2001). Nonetheless, a comprehensive definition of Rex F. Harlow is cited by Hutton (1999) as follows:

“Public relations is a distinctive management function which helps establish and maintain mutual lines of communication, understanding, acceptance, and cooperation between an organization and its publics. Involves the management of problems or issues; helps management to keep informed on and responsive to public opinion; defines and emphasizes the responsibility of management to serve the public interest; helps management keep abreast of and effectively utilize change, serving as an early warning system to help anticipate trends; and uses research and sound and ethical communication techniques as its principal tools.”

According to Ertekin (1995:9), public relations is the adoption of the policy followed by the administration, the full and continuous announcement of the services and works to the public, creating a positive image against the administration, and knowing what the people think about the administration and what they want from the administration. and cooperation with the public. According to the definition made by Cutlip et al. (1994:6), it is a management function that enables the establishment and maintenance of mutually beneficial and communicative relations between an institution and its target groups, which have an important place in the success or failure of the institution, and which is carried out in order to influence opinions and actions.

Public relations is not only the activities carried out to inform the governed, it is an interaction in which communication is in essence aimed at improving the public relations. In other words, it is not the effort of the administration to approve the actions and transactions of the public, but the realization of the actions and transactions by interacting with the governed, thus obtaining a spontaneous approval from the public (Kazancı, 1980: 32). Peltekoğlu (2014:4), on the other hand, defines public relations as planned activities based on two-way communication, in which both parties have mutual interests and try to influence the public with honest and responsible practices.

Harlow (1976) highlights the common characteristics of public relations practices as follows:

- Public relations require expertise and must be managed by experts who know their job well in order to achieve successful results.
- It closely examines and analyzes the behavior of the target audience and shares the results with the management.

- It carries out the research needed by the organization, and presents the policy and program proposals to the management.
- It uses mass media effectively, manages the corporate image and reputation by establishing healthy and sustainable relationships.
- The public relations unit operates continuously as a part of the management.

The public relations process consists of four major stages, which are research, planning, implementation and evaluation.

Research: Determining the ideas and thoughts of the circles starts with the research phase in public relations practices (Özkan, 2009:47). Therefore, the first step to be taken in a public relations campaign will be information gathering or research. At this stage, information will be collected; It is very important to correctly answer the questions of which audience, by what method, when to reach and what to convey. Targeted with the research phase; is to make an effort to reveal what the public thinks about any person, institution or organization and to ensure the formation of desired attitudes. In order to achieve this result, the first step should be the recognition of the target audience. After all, this is the purpose of research and information gathering. A public relations practice will not be successful unless the characteristics, views, thoughts and tendencies of the target audience are understood in the public relations work (Yavuz, 2016: 91).

Planning: Based on the information and data obtained during the research phase in the public relations process (Çamdereli, 2000:64), the application details about how to solve a topic or problem and how to evaluate the opportunities are included in the planning phase. During the planning phase, strategic considerations are written down and the plan includes operational details, adhering to the

strategy. Since it has a direct effect on the implementation of public relations practice, planning should be in an effective structure and should include detailed, goal-oriented research and evaluations that ensure the efficient use of resources by calculating all the variables. The term of the planning can be made as short, medium or long-term, depending on the perspective of the strategy (Uludağ, 2008: 99).

Implementation: Messages prepared according to the information and data collected during the research phase are delivered to the target audiences during the implementation phase with the previously planned communication tools and techniques. During the implementation phase, the pre-prepared plan should be strictly adhered to. The implementation phase is a process that requires the most attention and does not accept mistakes (Okay and Okay, 2001: 276). The studies carried out at the stage until the implementation have more of a static feature and remain on paper. It is seen that this static structure turns into a dynamic structure with the implementation phase. It will be beneficial to test the plan and the determined messages, which have been prepared in advance, with a preliminary trial for a small audience that will represent them, in the target audience that is intended to be addressed, in terms of providing the opportunity to foresee and correct the problems that may arise in the future. After this trial is done, the prepared plans are put into practice. And in this process, necessary coordination studies should be carried out continuously (Yavuz, 2016:95).

Evaluation: In the public relations process, after the research, planning and implementation phases, the evaluation phase starts. At this stage, the results are evaluated by analyzing the extent to which the public relations activities carried out have reached the planned goals (Kadıbeşgil, 1987:216). Due to these features, the evaluation phase has a very important

place in the public relations process. Because communication activities are accepted as successful to the extent that they can be measured, and studies can be carried out to make the activities more efficient and successful with the data obtained after the evaluations (Özkan, 2009:55).

3. THE IMPORTANCE OF PUBLIC RELATIONS IN MUNICIPALITIES

Municipalism is closely related to public relations activities. Because the organization called the municipality came to the administration with the election of the city residents; It is an institution that provides services under the close supervision and surveillance of city residents, and is constantly on the agenda with its services and staff (Ertekin, 1995:8). In addition, municipalities are the closest public institutions to the public in urban life. As long as municipalities adopt the understanding of public service and establish sincere relations with the public, they can gain their trust, love and support. The duty of providing sincere and close relations with the public in municipalities is in the public relations units. However, in some local governments, public relations are not given due importance and they do not have public relations units or public relations staff. For this reason, the bond between the people and the administration is broken, the trust of the people in the administration decreases and the chance of being elected once again decreases (İşçi, 2002: 127).

Public relations identify existing, incomprehensible or misunderstood problems, resolve the confusion and lay the groundwork for establishing good ties between the public and the municipality. Establishing good ties with the public, correct and positive perception of the municipality by the public is possible through well-conducted public relations activities. For this reason, municipalities should first determine what the expectations, requests and

complaints of the people are, and then determine their service policies according to the information and data they have obtained. The ability of municipalities to continue their existence and to be supported by the public is directly related to their performance in the field of public relations (Kurt, 2015:234).

In this sense, municipalities, which are loaded with broad authorities and responsibilities related to city administration, aim to explain their plans and programs to the citizens and to gain the trust of the citizens. Because, informing the public about the work of local governments and providing the support of the public in large projects that concern the people of the town are the prerequisites for the success of local governments (Gölönü, 2000: 128).

Public relations in municipalities are important because they fulfill the following functions:

- Determining the views of the target groups served on the municipality, evaluating and interpreting the attitudes of various publics associated with the municipality.
- Increasing the acceptance of the administration and staff in the society with the services provided by the municipality and helping the municipality administration in defining new goals to be created in this direction.
- Combining the objectives, defined by the municipality with the interests, needs and goals of other segments of the society, providing the support of the wider segment of the society to the decisions to be taken and the implementations to be implemented.
- Developing programs, implementing practices and evaluating them to gain the understanding the public regarding municipal services, and providing clues to

the administration about the next steps to be taken (Tarhan and Bakan, 2013: 28).

The objectives of public relations activities in municipalities can be given as follows:

- To determine the tendencies, attitudes and expectations of the people regarding the municipality and to make suggestions for the appropriate improvements in the municipality.
- Finding the real reasons for the public's behavior.
- To eliminate the misunderstandings that have arisen in the public regarding the municipality.
- To develop mutual respect and sense of social responsibility between the municipality and the public.
- To ensure harmony between individual interests and public interests.
- Contributing to the improvement of the quality of services offered to the public.
- To inform the public about the service policies and practices of the municipality.
- To give citizens the opportunity to express their views on important and new projects before making final decisions about public service by the municipalities.
- To enlighten the public about the system and functioning of the municipality and their rights and responsibilities (Özdemir, 2016: 34).

4. RESEARCH METHODOLOGY

One of the most distinctive features of the digital age is that both public and private organizations now offer almost all of their services through digital channels. Considered in the context of public relations, it has become a necessity for the call centers, which are responsible for ensuring the

communication of the residents with the municipalities, to offer service alternatives through digital channels.

Turunc Desk, which started its operations in 2014 by the Muratpaşa municipality one of the largest counties in the metropolitan city of Antalya, is one of the important examples of hybrid public relations activities in Turkey. Turunc Desk is a systematic public relations project (URL1), which provides a direct communication channel where citizens can reach all kinds of requests, suggestions and complaints about the municipality and city administration, 24 hours a day, seven days a week through both online and offline channels (URL2).

While offline interaction by the residents can be established through help desk, call center, mobil support team, fax, and mail, online suggestions and complaints could be submitted through website, e-mail, social networks (Facebook, Instagram, WhatsApp, etc.) and its mobile application. All inquiries are directed to the coordination center, which is considered the heart of the project. As soon as the inquiry is registered, a registration number is sent to the citizen's phone via SMS, to track it on the municipality's website. Within the scope of the project, it is aimed that the citizens can reach a solution in their inquiry by the Turunc Desk personnel. Inquiries, collected at the coordination center are forwarded to the relevant departments through the system. The project aims to provide feedback about the status of the inquiry within 48 hours after receiving the request (URL2).

In this research, it was aimed to investigate the efficiency of hybrid public relations efforts of municipalities. Operational success of Turunc Desk, which is a comprehensive public relations project of Muratpaşa Municipality that operates in both traditional and digital platforms has been examined. It has been analyzed to what extent the municipality's multi-channel public relations efforts meet the expectations of the residents.

In this study, a questionnaire was asked to be filled by the residents of Muratpaşa region. The data was collected by the convenience sampling method. The questionnaires were filled by residents over the age of 18 who had previously received service from Turunc Desk, and it was tried to ensure that the percentages of men and women participating in the survey were as equal as possible.

In this study, convenience sampling method was used. A total of 210 participants answered the questionnaire. The first part of the questionnaire consisted of the demographic questions, aimed at compiling information such as gender, age, educational status and income level. The succeeding section of the questionnaire was about measuring the overall satisfaction level of the Turunc Desk service quality.

5. FINDINGS

Table 1 shows the frequency distribution of the participants by gender. As seen in Table 1, female participants are slightly higher than males, while 1.4% of the participants did not answer the question.

Table 1. Frequency distribution of the participants by gender

Gender	Frequency	%	Valid %
Women	111	52.1	52.9
Men	99	46.5	47.1

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Sub Total	210	98.6	100.0
Unanswered	3	1.4	
TOTAL	213	100.0	

Table 2 illustrates that the highest number of participants are from the 31-40 age group, followed by 41-50 and 51-60 age groups. Adding up together, these three groups consist of the 53.5% of the total number of participants.

Table 2. Frequency distribution of the participants by age groups

Ages	Frequency	%	Valid %
18-30	18	8.5	12.2
31-40	42	19.7	28.4
41-50	36	16.9	24.3
51-60	36	16.9	24.3
61 +	16	7.5	10.8
Sub Total	148	69.5	100.0
Unanswered	65	30.5	
TOTAL	213	100.0	

As seen in Table 3, most of the participants have either high school or bachelor's degree. In total those two groups consist of 60.1 of the total participants.

Table 3. Frequency distribution of the participants by education level

Education	Frequency	%	Valid %
First School	27	12.7	12.9
High School	67	31.5	31.9
Vocational School	37	17.4	17.6
Faculty	61	28.6	29.0

Graduate School	18	8.5	8.6
Sub Total	210	98.6	100.0
Unanswered	3	1.4	
TOTAL	213	100.0	

Table 4 depicts the frequency distribution of the preferred platforms to access Turunc Desk services. As seen from Table 4, majority of the residents prefer traditional ways; dialing call center (43.7%) or visiting the help desk (14.6), both operated in the

coordination center of the town hall. The third preferred way to reach Turunc Desk is the official website (14.1%). In total, online users of the Turunc Desk project consist of slightly over a third of the participants (33.9%).

Table 4. Frequency distribution of the Turunc Desk platform preferences

Preference	Frequency	%	Valid %
Help Desk	31	14,6	15,3
Online Inquiry Form	14	6,6	6,9
E-Government	2	0,9	1,0
Call Center	93	43,7	46,0
Offline Inquiry Form	2	0,9	1,0
Mobil Support Team	4	1,9	2,0
Facebook (Mayor)	8	3,8	4,0
Facebook (Municipality)	4	1,9	2,0
Website	30	14,1	14,9
Secretary of the Mayor	8	3,8	4,0
Twitter	2	0,9	1,0
Other	4	1,9	2,0
Sub Total	202	94,8	100,0
Unanswered	11	5,2	

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TOTAL	213	100,0
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Finally, Table 5 shows the satisfaction levels of the participants with the Turunc Desk services. As seen in Table 5, majority of the participants are happy with

the project (84.5%). This finding is important in terms of the success of the hybrid public relations efforts.

Table 5. Frequency distribution of the satisfaction level

	Frequency	%
Not satisfied at all	2	0.9
Not satisfied	4	1.9
None	27	12.7
Satisfied	106	49.8
Very satisfied	74	34.7
TOPLAM	213	100.0

While Table 6 lists the statements of the scale, Table 7 displays descriptive statistics for them. The positive responses to Turunc Desk's accessibility and its willingness to solve problems show that the public relations practices have been successfully implemented by the municipality. Because, being accessible and willing to learn the expectations of the residents are among the main objectives of any public relations department want to achieve. The

statements regarding the operations and the system of the Turunc Desk indicate that the residents of region are largely satisfied with the functioning of the Turunc Desk. However, it is observed that the residents of the region are somewhat dissatisfied with the negative feedbacks that some of their requests, complaints and suggestions cannot be resolved for various reasons.

Table 6. List of the statements of the scale

Item #	Statement
1	Turunc Desk works actively
2	Turunc Desk staff communicate sincerely
3	Turunc Desk informs the inquirers properly
4	Turunc Desk brings solutions to problems
5	Turunc Desk directs the inquiries to the relevant departments
6	Turunc Desk employees have sufficient knowledge about the municipal services
7	Turunc Desk is easily accessible

8	Turunc Desk serves equally to everyone
9	Turunc Desk contains several bureaucratic jobs
10	Turunc Desk aims to help the residents
11	Turunc Desk cannot sufficiently inform the inquirers
12	Turunc Desk staff's diction is adequate
13	Turunc Desk aims to reduce complaints
14	Turunc Desk aims to learn the expectations of the residents
15	Turunc Desk cannot sufficiently help the inquirers
16	Turunc Desk understands the inquiries correctly
17	Turunc Desk helps quickly

Table 7. Descriptive statistics for the statements of the scale

Statements	Totally Agree		Agree		Neither Agree, Nor Disagree		Disagree		Totally Disagree		Mean	Standard Deviation
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%		
1	107	50.2	84	39.4	19	8.9	0	0	0	0	4.42	0.65
2	121	56.8	75	35.2	15	7	0	0	0	0	4.50	0.63
3	91	42.7	101	47.4	11	5.2	0	0	0	0	4.39	0.59
4	77	36.2	99	46.5	32	15	0	0	0	0	4.22	0.69
5	95	44.6	90	42.3	24	11.3	0	0	0	0	4.34	0.68
6	83	39.0	87	40.8	35	16.4	1	0.5	0	0	4.22	0.76
7	131	61.5	71	33.3	9	4.2	0	0	0	0	4.58	0.58
8	104	48.8	77	36.2	20	9.4	0	0	0	0	4.42	0.67
9	19	8.9	34	16	51	23.9	39	18.3	60	28.2	3.43	1.32
10	109	51.2	81	38	17	8	0	0	0	0	4.44	0.64
11	20	9.4	28	13.1	30	14.1	61	28.6	67	31.5	3.62	1.32
12	96	45.1	79	37.1	31	14.6	0	0	0	0	4.32	0.72
13	89	41.8	98	46	15	7	0	0	0	0	4.37	0.62

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14	78	36.6	104	48.8	27	12.7	0	0	0	0	4.24	0.67
15	10	4.7	26	12.2	32	15	66	31	72	33.8	3.80	1.19
16	70	32.9	109	51.2	30	14.1	0	0	0	0	4.19	0.67
17	80	37.6	99	46.5	30	14.1	0	0	0	0	4.24	0.69

Before discussing the results of the inferential statistical analysis, the validity and reliability analyses of the scale, consisting of 17 statements have been conducted. While factor analysis is carried out for the validity, the correlation between sample size and components is also important. Therefore, before establishing the factor analysis, sufficiency of the sample size was tested by examining the KMO (Kaiser-Meyer-Olkin Measure of Sampling

Adequacy) coefficient, and comparing the correlation between the components with the Bartlett test. Since the KMO coefficient has been found 0.929 in the study, it was concluded that the sample size was acceptable. Since the value of $p = 0.000$ for the Bartlett test, it was concluded that the data was suitable for factor analysis. The component matrix, obtained after conducting the factor analysis is shown in Table 8.

Table 8. The component matrix for the factor analysis

	Components	
	I.	II.
Statement #1	0.760	-0.084
Statement #2	0.824	0.065
Statement #3	0.757	-0.189
Statement #4	0.771	-0.185
Statement #5	0.820	-0.160
Statement #6	0.759	-0.046
Statement #7	0.766	0.041
Statement #8	0.778	0.044
Statement #9	0.723	0.449
Statement #10	0.761	-0.082

Statement #11	0.703	0.530
Statement #12	0.789	0.150
Statement #13	0.775	-0.208
Statement #14	0.773	-0.277
Statement #15	0.616	0.528
Statement #16	0.693	-0.338
Statement #17	0.745	-0.224

As seen in component matrix in Table 8, the coefficients can be combined into a single factor group, hence the scale consists of only one dimension. In the next step, reliability analysis has been tested. Since the Cronbach's Alpha coefficient has been found as 0.929, the scale found highly

reliability. Then, Kolmogorov-Smirnov test has been conducted to examine the normality of the distribution (Table 9). As seen in the summary statistics, presented in Table 9, $p > 0.05$. Hence, it is concluded that the data is normally at the 95% confidence level.

Table 9. Kolmogorov-Smirnov test statistics

	test stats	(df)	p
Score	0.103	213	0.122

Then, t-test has been conducted to investigate the differences, based on gender. Table 10 shows that there is a statistically significant difference in opinions about Turunc Desk between women and

men at the 95% confidence level ($p < 0.05$). Since the mean score of men (4.4986) is higher than the mean score of women (3.9656), it is concluded that men have more positive opinions about Turunc Desk.

Table 10. t-test stats for gender

	n	Mean score	St. Dev.	t	p
Women	111	3.9656	0.48298	-8.350	0.000
Men	99	4.4986	0.43670		

The next analysis was the ANOVA for the differences amongst the age groups. The results of the ANOVA test in Table 11 indicate that there is no statistically

significant difference between the age groups about the opinions about Turunc Desk at the 95% confidence level ($p > 0.05$).

Table 11. ANOVA stats for the age groups

	Sum of squares	df	Mean square	F	p
Between groups	0,992	4	0,248	0,854	0,493
Within groups	41,491	143	0,290		
Total	42,483	147			

Finally, the opinions of the groups with different education levels have been compared. As seen in Table 12, the results of the ANOVA test suggest that

there is a statistically significant difference in at least one learning group in terms of the opinion about Turunc Desk at the 95% confidence level ($p < 0.05$).

Table 12. ANOVA stats for the educational levels

	Sum of squares	df	Mean square	F	p
Between groups	4,168	4	1,042	3,914	0,004
Within groups	54,582	205	0,266		
Total	58,750	209			

6. CONCLUSION

In Turkey, municipalities are the legal public entities with administrative and financial autonomy, established to meet the local common needs of town residents and whose decision-making bodies are elected by voters (Turkish Municipal Law, 2005: article 3). Since the municipalities have administrative and financial autonomy, they have a great freedom in meeting the common needs (social and technical) of the residents. Hence, establishing public relations practices correctly, mayors could gain a great advantage to be re-elected by the voters.

In this research, it was aimed to investigate the efficiency of hybrid public relations efforts of municipalities. Operational success of Turunc Desk, which is a comprehensive public relations project of Muratpaşa Municipality that operates in both traditional and digital platforms has been examined. In this study, it has been analyzed to what extent the municipality's multi-channel public relations efforts meet the expectations of the residents.

A questionnaire was formed to compile data for this analysis; Due to the time and financial constraints, the minimum sample size was determined at a certain

sensitivity level. The following conclusions were reached with the findings of the analyses:

The residents of the town living in Muratpaşa region feel that it is easy to reach Turunc Desk. None of the participants gave a negative response to the statement "Turunc Desk is easily accessible". Hence, it can be said that providing hybrid access options to Turunc Desk by providing multiple (13+) offline and online channels 24 hours a day has the biggest advantage of the project.

Regarding the receipt of the forwarded inquiries, the participants state that they are given a large amount of information. In addition, none of the residents of the town gave a negative response to the statement "Turunc Desk informs the inquirers properly". This confirms that as soon as the inquiry is registered, the registration number is sent to the inquirer's phone via text message. At the same time, the participants largely agree with the statement "Turunc Desk helps quickly".

When a general evaluation is made, based on descriptive statistics, it is possible to assert that the participants of the study largely support the view that Turunc Desk provides equal service to all citizens without discrimination. This situation confirms the effort of Turunc Desk to solve the problems of its residents.

It is widely accepted by the participants that Turunc Desk fully understands the citizens' inquiries, works actively to solve them, uses appropriate approach to welcome the inquirers, hence sincere in communication.

As a result, it can be concluded that such multichannel public relations project may help municipalities to establish a honest and sincere interaction with the residents to gain trust by understanding and solving the problems or requests.

Further research on this subject may compare different public relations project in qualitative and quantitative analysis. Moreover, a detailed comparison of the efficiency of traditional and digital public relations project can be conducted.

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A STUDY ON THE RELATIONSHIP BETWEEN PERFORMANCE APPRAISAL AND MOTIVATION OF THE NURSES

Tuğçe YILMAZSOY*

* Süleyman Demirel University, M.A. Graduate, atestugce.07@gmail.com, <https://orcid.org/0000-0002-4655-4928>.

ABSTRACT

The COVID-19 pandemic crisis has shown that the job performance of physicians and nurses is crucially important for effective, efficient and uninterrupted fulfillment of health services. It is seen that the studies within the scope of performance evaluation are generally made for physicians and there is not enough research on the performance evaluation of nurses in particular. In this study, it was aimed to examine the effect of the performance evaluation system on the motivation of the nurses. Findings of the study highlight that self-performance assessment of the nurses significantly affect both intrinsic and extrinsic motivation dimensions.

Keywords: *Performance Appraisal, Motivation, Nurse, Health Sector.*

1. INTRODUCTION

The COVID-19 pandemic crisis has shown that the job performance of physicians and nurses is crucially important for effective, efficient and uninterrupted fulfillment of health services. It is seen that the studies within the scope of performance evaluation are generally made for physicians and there is not enough research on the performance evaluation of nurses in particular. The fact that nurse performance evaluations are made with personal evaluations rather than professional methods in the provision of health services adversely affect dynamic workforce planning and reduce the motivation of employees by preventing the execution of the performance-related reward and punishment system.

The implementation of the performance appraisal system should be based on the use of effective management and the determination of what is expected from the personnel. Planning for the improvement and development of the performance of the institution and its personnel is the most important stage of the performance appraisal process. In the planning of the performance evaluation process, it is very difficult to answer questions such as who will be best served, in what way, and how we can best show the produced service (Kabadayı, 2002).

Performance evaluation is the evaluation of the working performance of nurses according to the determined performance standards. Design of the activities of employees affect the efficiency of an organization. Therefore, performance evaluation requires good planning. It also requires collecting information about employees and then meeting them formally. In this direction, it requires the performance criteria to be clearly revealed and defined, and the activities related to the work to be measured by observation (Camgöz, 2006).

Performance evaluation would provide meaningful information within the scope of the employer, the work carried out and the employees carrying out the work. Performance evaluation, in which the expectations of the employees and the needs of the job are revealed, will lead to a meaningful communication between the employer and the employees.

In this study, it was aimed to examine the effect of the performance evaluation system on the motivation of the nurses. In the following sections, firstly the concepts of performance and motivation have been discussed. Then, the findings of the empirical study have been provided and the discussed.

2. THEORETICAL BACKGROUND

Performance is a phenomenon that means the degree of success in any job and reveals what an employee does or does not. It is expressed as the fact that a public organization is more effective and efficient than others or according to its own history, shows where a person, group, work unit or institution can reach the target through that job (Usta, 2010).

In today's organizations, the productivity of the employees is crucially important. Establishment of technical possibilities where efficiency can be measured, and efficiency can be compared enables important strategies to be developed in terms of measurable success of the organization and performance.

Performance, which can be expressed as the level of fulfillment of a job or the behavior of the employee according to the determined conditions, is an indicator of what a person does or does not accomplish (Bingöl, 2010). The phenomenon of performance emerges as a result of the comparison of an individual's qualifications and abilities with business success measures arranged in relation to his job.

The performance criteria of each business or organization may differ. The process of improving these criteria is called the performance management process. Observing this process and determining the methods that should be applied between what is and what should be is to ensure the implementation of the determined methods. In this process, some of the objectives should be listed as increasing the performance in the personal and institutional sense, ensuring employee motivation, providing an objective attitude to the employees, revealing the phenomenon of organizational justice, determining the criteria for rewarding and promotion opportunities, and defining healthy business processes.

Although the health sector is a labor-intensive sector, it is an area where technological infrastructure is more prominent. Although there have been great technological advances in the field of health, the value of health workers constantly preserves its value.

Nonetheless, employees in the sector, as in other sectors, know that they will encounter appreciation and reward in cases where their professional knowledge and personal dedication are demonstrated. The productivity of health workers should be evaluated as an indicator of the efficiency of the delivery of health services. In this context, the increase in the performance of health workers will also increase the efficiency of the healthcare institutions.

When different sectors are observed, it is seen that the importance of employee performance in the health sector is higher. Because in addition to the high level of communication between the patient and the employee and those who will benefit from health services expects to receive quality and effective health services while possible mistakes in healthcare operations could lead to irreparable results.

It is also commonly noted in the literature that the management organizations that are designed correctly and in place will positively affect the said health institutions in terms of efficiency and performance. Thus, it is necessary to plan the organization and structural framework of health services within the scope of ensuring the continuity of its economic life together with its efficiency so that healthcare professionals should be satisfied with their work environment and workplaces.

Today's management approaches can deal with the concept of performance from different dimensions. Adhering to the fact that the main factor is efficiency, there is a need to analyze situations such as foresight sensitivity in the health sector, quality approaches, what is done and how it should be done, whether to provide added value in terms of the goals of the health institution. These needs reveal the necessity of measuring old and new concepts (Korkmaz, 2011). The concepts that need to be measured focus on seven different dimensions, which are efficiency, effectiveness, productivity, quality, innovation, quality of working life and profitability.

The delivery of nursing services is considered as one of the main elements of the delivery of health services today. Nursing services can be described as organizations where healthcare providers plan,

organize, perform, supervise and coordinate nursing services, follow sectoral changes and developments within the framework of institutional goals and policies and fulfill their requirements.

Nursing practices consist of knowledge of biological, psychological, behavioral and social sciences. Nursing can be defined as the diagnosis and treatment of individuals' current and potential health problems. These practices include providing care, protecting health, preventing and rehabilitating diseases and injuries (Karalili, 2011).

According to the International Council of Nurses (ICN, 2002), "Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It also includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people."

Nursing professionals who communicate with patients and their relatives during the preventive, diagnosis-treatment and recovery stages and provide one-to-one healthcare services provide services at similar standards all over the world. Hence, nurse performance is one of the most important productivity indicators for the health sector. Since nurse performance is evaluated in direct proportion to the number of patients per nurse per day, it also affects the service quality in the sector. Although many nursing service executives assess the input-output ratio while interpreting the productivity of nurses (Korkmaz, 2011), it is important to evaluate the work performance of nurses according to the determined performance criteria, which needs to be clearly revealed and defined (Camgöz, 2006).

As a result of the digitalization of the health sector, all kinds of information to monitor the performance of the employees can be recorded in real time. These data, which are also obtained in the field of nursing services, are accepted as a factor that facilitates evaluation in terms of performance evaluation. These digital data, which are evaluated systematically, contribute to the development of nursing services as well as performance evaluation.

Performance appraisal describes the nurse's performance and its relationship with organizational goals. It is the way to make a regular and formal evaluation of how well and how well nurses perform their duties in a certain period of time (Seyirci, 2009).

Motivation, which is one of the important factors affecting the performance of employees, has always been an important research topic in terms of academic studies. The term can generally be defined as an influencing reason to take action. Arık (1996) defines motivation as internal and external reasons and their functioning mechanisms that push people to act, determine the violence and energy level of their behaviors, give a certain direction to behaviors and ensure their continuity. In terms of Koçel (2001) definition, it is the behavior of individuals with their own desires and desires to achieve a certain goal. Palmer & Winters (1990) states that motivation is an internal force and can only be directed by the individual himself.

The desire to satisfy some logical, emotional, conscious or subconscious motivational forces is decisive in people's behavior. These motivational forces are called "needs" (Çermik, 2001). Although the needs (needs) vary from person to person, in general, they can be collected in two groups as basic and complementary needs.

Basic needs are physiological needs such as food, drink, shelter, rest and sleep that people need to maintain their lives. Some of the aforementioned needs may change and be oriented within the framework of traditions, customs and lifestyles along with regional geographical differences.

Complementary needs are less specific when considering basic needs. These needs are shaped within the framework of sociological and psychological arguments and are evaluated within the scope of human relations.

In both social life and business life, individuals seek to use time in the most efficient way by acting together. During this search, they act in accordance with social and cultural norms. This state of adaptation creates behavioral habits in human life. State and attitudes appreciated in society play a role

of need in terms of behavior patterns of individuals. When these needs are examined, it is seen that they are needs with social content.

In addition to social needs, there are also psychological needs that shape or direct the attitudes of individuals. These needs are based on thought and may occur due to psychological deficiencies. Such needs are quite complex. This complexity varies according to individuals and their personality traits. Another feature of sociological and psychological needs is gaining experience in the life process and gaining through learning. Some of these needs can be shown as personal appreciation, sense of duty responsibility, success, power, gain, compassion.

Instincts are one of the common traits that humans share with animals. It is seen that instincts are not acquired through education and training and are not forgotten throughout life. In general, instincts appear as a complex and periodic sequence of movements that come from nature and are related to lineage (Öztabağ, 1972). Although instincts are characterized as unconscious behaviors, they reflect a universal order and reaction. Behaviors such as thirst, breathing and hunger can be given as examples of instincts that do not require mastery, with different types of compensation.

Physiological motives, also known as impulses, are motives for the satisfaction of primary and basic needs in order to maintain life. It is also an important point that the continuity of the human race cannot be ensured if the physiological motives in question are not eliminated. In addition, although the physiological motives are in every individual, the severity of the motives differs between individuals (Penfield, 1969).

Unlike animals, humans can establish conscious relationships and organize life collectively thanks to social motives. Although it has been observed that animals wander in groups, no connection between their instinctive approach and consciousness has been detected. Unlike this, it is consciousness that brings people closer to each other and drags them to the phenomenon of collective life. The motivational push of people to collective life causes them to cooperate and to seek ways to use time economically.

In this process, they act in harmony with the rules, norms and traditions. The rules that ensure the continuity of collective living regulate the behavior of individuals in their lives. Behaviors appreciated by the environment play the role of a social motive within the framework of the individual's behavioral goals. These social behaviors provide the order of life and affect the formation of physiological motives (Penfield, 1969).

Apart from social motives, there are also psychological motives that create or direct the behavior styles of individuals. Such motives are revealed by spiritual and intellectual needs. These motives determine personality and behavioral characteristics. Although psychological motives are complex, they vary from person to person. Psychological motivation is sometimes the desire to be noticed and sometimes the desire to be independent, but the bond that unites them is the desire for power (Munn, 1968).

The scale developed in the studies of Mottaz (1985), Brislin et al. (2005), and Mahaney & Lederer (2006) to measure the effect of motivation factors on the performance of employees has two sub-dimensions as intrinsic and extrinsic motivation. According to the intrinsic motivation perspective, employees are motivated by the work itself. There is no external control that regulates one's behavior here. Such a state of motivation can be characterized as the experience of revealing one's own abilities (Brief and Aldag, 1976).

Intrinsic motivation tools are directly related to the nature of the work and are derived from the content of the work. An interesting and challenging job includes factors such as independence at work, importance of the job for the employee, participation in the job, responsibility, diversity, creativity, opportunities to use one's talents and skills, and satisfactory feedback on one's performance (Mottaz, 1985).

Focusing on the job itself, the work of Hackman and Lawler (1971), and Hackman and Oldman (1975), identified five job characteristics that were conceptually independent and suggested that they could be applied to any job. These characteristics are;

variety of skills, identity of the job, importance of the job, independence and feedback.

According to Mottaz (1985), extrinsic motivation tools include two dimensions. While the first dimension is related to social motivation tools, the second dimension is related to organizational tools. The social motivation dimension includes factors such as friendship, helpfulness, support from colleagues and supervisors and is based on the quality of interpersonal relationships.

The organizational dimension of extrinsic motivation tools is related to the opportunities offered by the organization to increase job performance. These tools are tangible and include factors such as adequacy of resources in the workplace, equal pay, opportunity for promotion, additional benefits and job security. These factors are also called instrumental motivational tools.

3. RESEARCH METHODOLOGY

The main purpose of this study is to determine the relationship between the motivation and performance levels of nurses working in in the medical faculty of a state university in Turkey. In addition, it was also aimed to understand the factors affecting the motivation and performance levels of nurses.

The working life of nurses includes quite a variety of activities and duties. The performance of nurses positively related to their interaction with patients, colleagues, executives, and other people working in the same environment. Therefore, in addition to the internal and external motivators of nurses, professional motivation, job satisfaction and organizational commitment levels are of great importance in terms of their performance.

The population of the study consists of 700 nurses working in the medical faculty of a state university in Turkey. In the study, the sample size was calculated as 149 at an acceptable error level of 5%. Face-to-face survey method has been conducted to collect the data.

The questionnaire form used in the research consists of three parts. In the first part of the questionnaire

aims to understand the demographic characteristics of the participants. In the second part, scales developed by Mottaz (1985), Brislin et al., (2005), and Mahaney and Lederer (2006) were used to measure the motivation levels of the nurses.

Finally, in the third part of the questionnaire, the scale developed by Selçuk (1998) was used to measure the effectiveness of nurses' performance evaluations. This scale measures the efficiency level of nurses in evaluating their individual job performances and the job performances of their executives. A high score in the scale, which consists of two sub-dimensions, means that the individual performance of the nurse is high and that the executives evaluate the employee performances effectively.

On the analysis of data; descriptive statistics are presented with frequency, percentage, mean and standard deviation values. Exploratory factor analysis was used to determine the factor structure of the question groups in the study. Cronbach Alpha analysis was used to test the internal consistency of the dimensions. Correlation and regression analysis was applied to determine the relationships between the dimensions.

4. FINDINGS

It was determined that 148 of the participants of the study were nurses, while only one of them was midwife. The average age of the participants was 35 while their average professional experience was 12 years, and the average working time in the hospital where the research was carried out was 10 years.

Regarding the perceptions about performance appraisal of the participants in nursing; while evaluating the professional success of nurses with 13%, the way or process of providing care by nurses to patients and other people by 28%, the evaluation of nurses' efficiency and effectiveness in job presentation steps with improved scales with 41%, the evaluation of the monetary value of the labor process of nurses with 7%, 12% of the participants stated that there are subjects other than these subjects (Table 1).

Table 1. Participants' Demographic Characteristics and Opinions on Performance Appraisal

Task	n	%
Midwife	1	.7
Nurse	148	99.3
Total	149	100.0
What does performance appraisal mean in nursing?		
Evaluation of the professional success of nurses	19	12.8
Evaluation of the way or process of providing care to patients and other people by nurses	41	27.5
Evaluation of nurses' efficiency and effectiveness	61	40.9
Evaluation of the monetary value of the labor process of nurses	10	6.7
Other	18	12.1
Total	149	100.0
Is performance measurement necessary in nursing?		
Yes	137	91.9
No	12	8.1
Total	149	100.0
Does performance appraisal of nurses has an effect on work efficiency and service quality?		
Yes	139	93.3
No	10	6.7
Total	149	100.0

As can be seen in Table 2, 92% of the nurses stated that performance measurement is necessary in nursing and 93% of them stated that performance evaluation has a positive effect on work efficiency and service quality. 80% of the nurses think that performance evaluations should be explained. While

56% of the nurses stated that rewards or punishments should be made according to the results of the performance evaluations, 11% of the nurses had knowledge about at least one performance evaluation system.

Table 2. Participants View on Performance Appraisal

Should the Results of Performance Appraisal be Announced?	n	%
Yes	119	79.9
No	30	20.1
Total	149	100.0
Should Reward/Punishment Methods be Applied After Performance Appraisal?		
Yes	83	55.7
No	66	44.3
Total	149	100.0

Do You Know of Any Performance Appraisal Systems in Nursing?	n	%
Yes	16	10.7
No	133	89.3
Total	149	100.0

Who Would You Like to do the Performance Appraisal in Nursing?	n	%
My Colleagues	12	8.1
Chief Nurse	50	33.6
Service Physician	3	2.0
Floor Nurses	1	.7
Both Executives and Assistants	28	18.8
Myself	6	4.0
All	49	32.9
Total	149	100.0

As can be seen from Table 2, it is desired by the majority of nurses that performance evaluations should be carried out by the chief nurse or a mixed system.

In the survey study, the Cronbach Alpha coefficient of the reliability of the scale, which consists of 25 statements about measuring the motivation levels of

nurses, was determined as 0.92. The Cronbach Alpha coefficient of the reliability of the scale, which consists of 17 statements about measuring nurses' performance efficiency levels, was determined as 0.90. The coefficient obtained shows that the scale is reliable enough to be considered sufficient. After the reliability analysis, factor analysis was applied to the scales in order to test the construct validity.

Table 3. Reliability and Validity

Dimensions	Statements	Internal Consistency	Variance Explained (%)	Eigen Value
Intrinsic Motivation	1 - 9	0.88	34	6.65
Extrinsic Motivation	10 - 25	0.83	30	4.29
Nurses' Self Performance Assessment	1 - 10	0.80	16	4.01
Performance Assessment by Chief Nurses	11 - 17	0.76	12	3.66

As a result of the Factor Analysis, two sub-dimensions were determined in the motivation scale. These dimensions are defined as intrinsic and extrinsic motivation. The KMO coefficient was found as 0.89. The coefficient indicates that the sample size is sufficient for the further analyses. In addition, the dimensions obtained according to the result of the Bartlett Sphericity test, in which the significance of the factor structures were tested ($p = 0.001$, $p < 0.05$), were found significant.

Two sub-dimensions were determined in the performance effectiveness scale. These dimensions are defined as nurses' self-performance assessment and performance assessment by chief nurses. The KMO coefficient was found as 0.84. The coefficient indicates that the sample size is sufficient for the further analyses. The dimensions obtained according to the result of the Bartlett Sphericity test, in which the significance of the factor structures was tested ($p =$

0.001, $p < 0.05$), were also found significant. Finally, it was observed that the distributions of the all sub-

dimensions conformed to the normality ($n = 149$, K-S $p = 0.200^*$, $p > 0.05$)

Table 4. Modeling the Relationships Between Motivation and Performance Appraisal

Dependent Variable (Y)	R ²	Model	Nurses' Self-Performance Assessment	Performance Assessment by Chief Nurses
			β	
Intrinsic Motivation	0.13	F=17.41 p=0.001	0.322 p=0.01	No Relationship
Extrinsic Motivation	0.15	F=12.52 p=0.001	0.386 p=0.01	No Relationship

As seen in Table 4, it has been determined that the only dimension affecting intrinsic motivation is Nurses' Self-Performance Assessment. This partial relationship seems to be mathematically significant ($F = 17.41$, $p = 0.001$, $p < 0.05$). The percentage of the independent variable, explaining the changes in the intrinsic motivation dimension was found to be 13% ($R^2 = 0.13$).

Similarly, it is seen that only Nurses' Self-Performance Assessment dimension can affect the extrinsic motivation dimension. This partial relationship also seems to be mathematically significant ($F = 12.52$, $p = 0.001$, $p < 0.05$). The percentage of this dimension explaining the changes in the independent variable was found to be 15% ($R^2 = 0.15$).

5. CONCLUSION

Nurses are healthcare professionals that play a key role in ensuring communication between healthcare staff and visitors to whom the patient and their family members contact around the clock. The efficiency and effectiveness of nurses while performing their services varies depending on their motivation. For this reason, the motivation levels of nurses should be observed, and attempts should be made to increase their motivation levels and keep their performance higher.

This study was carried out to determine the relationship between the motivation levels and performance levels of nurses working in a state university hospital in Turkey. The internal consistency values of the performance and motivation sub-dimensions used in the study were calculated and it was seen that the answers given by the participants to the questionnaire were consistent.

Nurses who think that rewarding or punishing methods should be applied as a result of the performance appraisal were found to have a higher level of intrinsic motivation as a result of the performance evaluation. The reason why nurses think that rewarding or punishing methods should be applied as a result of performance appraisal is effective on intrinsic motivation is that reward or punishment is related to intrinsic motivation. Mottaz (1985) stated that rewarding and punishing employees are related to their intrinsic motivation levels. Consistent with the findings of this study, Mottaz (1985) expects that employees' rewards and punishments do not affect their extrinsic motivation levels.

The findings obtained in the study are also consistent with the findings of Karabulut and Çetinkaya (2011). Öztürk (2006) also found that the motivation levels of

nurses are indifferent according to their education levels.

In Karabulut and Çetinkaya's (2011) study, it was determined that demographic characteristics of nurses only age and working time did not have a significant effect on performance dimensions, which supports the findings of this research. In the study of Seyirci (2009), it has been observed that nurses in administrative duties have higher job performance than other nurses. These results, however, differ from the findings of this study.

In the study of Ertan (2008), it is stated that as the age of the employees increases, their intrinsic motivation, extrinsic motivation and general work motivation increase, which is not consistent with the findings of this study. Nonetheless, the findings of Ertan (2008) also highlight that as the work experience of the employees increases, their intrinsic motivation and extrinsic motivation increase, relatively, that supports the findings of this study.

Similarly, Öztürk's (2006) study also reveals that the performance levels of nurses increase as the internal motivation increases. In the study of Ölçer (2005), it was stated that there is a positively significant relationship between the level of motivation and the level of performance. Köroğlu (2011) found a positive and significant relationship between job motivation and job performance in a study on the relationship between job satisfaction and the factors affecting motivation levels with performance. All these results support the findings of the study.

Various suggestions have been developed within the scope of the results obtained. First of all, studies should be carried out on the use of motivators that increase their performance by considering the motivation levels of nurses. In order to appraise the performance of nurses, the performance criteria in the organization should be determined clearly, measurably and in accordance with the truth, and should be communicated to the employees.

Furthermore, training programs can be arranged by identifying the issues with insufficient professional knowledge. A performance appraisal system suitable

for measuring the performance level of nurses should be established and the performance of employees should be measured at least once a year and promotions should be made according to these results. At the same time, making the promotions based on the seniority of the employees and having received the appropriate training for the position they will be brought to may increase the motivation and performance level of the nurses.

In order to increase the motivation of the employees, executives can consider rotations by evaluating the wishes of the employees at certain intervals. In this study, only the performance evaluation scale, in which executives and nurses themselves making the assessment, was used. In future studies, the scope of the study can be expanded by making performance measurements in which higher rank of executives and patients evaluate employees.

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ACCOUNTING AND ACCOUNTANT PARADIGMS CHANGED BY DIGITALIZATION

Hayrettin USUL*, Burcu BAHÇECİ BAŞKURT**

* Prof. Dr., İzmir Kâtip Çelebi University, Faculty of Economics and Administrative Sciences, Business Administration, hayrettin.usul@ikc.edu.tr, <https://orcid.org/0000-0002-3930-0866>.

** Ph.D. Candidate, İzmir Kâtip Çelebi University, burcu.baskurt@ikc.edu.tr, <https://orcid.org/0000-0002-2552-3129>.

ABSTRACT

Two of the paradigms that digitalization has radically changed and transformed are undoubtedly the definitions of accounting and accountant. Many paradigms that are found in the traditional definitions have been changing or even disappearing. Among these paradigms, the abolition of the concepts of classification, recording and reporting as well as the accompanying radical changes in the definitions of accountants are found to be especially attention grabbing. The digitalization, unlike traditional accounting, imposes new functions on the accountant and introduces a new concept of accountant. In this study, the changing definitions of the accounting and accountant and the new paradigms brought about by the new definitions are scrutinized.

Keywords: *Artificial Intelligence, Accounting, Auditing, Digitalization.*

1. INTRODUCTION

Fundamental changes and transformations continue to take place in the accounting discipline due to the digitalization. These changes and transformations have brought by new definitions of accounting and of the accountant. Functions of some professions that perform the functions of classifying, collecting, recording, and ensuring that the collected data is ready to use have been changing due to the digitalization and the accounting is one of the most foremost ones among these professions.

The changes that have appeared in the expectations of stakeholders, especially those who use accounting information, after the initialization of the digitalization period have started to be effective in adapting the accounting profession to respond to these demands. Redesign of the accounting profession mean an adaptation into the digitalization process, undertaking digital transformations of businesses and transforming into a digitalizing profession.

Adapting to the digitalization process requires accounting organizations to restructure their infrastructure, strategic business processes, business models and operational processes (Busulwa & Evans, 2021). While adapting to digitalization, various risks arise at the same time. These risks are increasing

complexity and uncertainty in practicing the profession, unprecedented regulations, increasing needs in compliance requirements, changing professional capabilities and proliferation of requirements (International Federation of Accountants [IFAC, hereafter], 2017).

Due to the digital revolution, we are currently in, radical changes in the accounting profession are inevitable. In particular, the fact that the recording and reporting functions of accounting will be performed by machines will make the accountants have more time hence it changes the job description of accountants and allows them to focus on adding more value to their customer-based businesses, leading them to take on more specific tasks (Kruskopf et al., 2020: 84-85)

In this context, in this study, the changes and transformations in the concepts of accounting and accountant will be examined with the effect of digitalization.

2. THE IMPACT OF DIGITALIZATION ON THE CHANGE IN ACCOUNTING PARADIGMS

The digitalization has enormous impacts on the financial sector and, as a result of these effects, is drastically changing the validity of traditional

accounting definitions. Below these changes are examined.

2.1. Changes in Accounting Definitions

With the impact of digitalization, traditional accounting functions such as recording transactions and preparing financial reports are increasingly performed by artificial intelligence. For example, operations such as expense management and processing of accounts are conducted by artificial intelligence-supported algorithms. Accounting plays a key role in controlling and designing the digitalization process, executing changes and tailoring the strategy (IFAC, 2018; Kruskopf et al., 2020: 79).

The emergence and development of concepts such as network connections, cloud computing, IoT and artificial intelligence necessitates the creation of new concepts with changes in the traditional definition of accounting. This situation leads to the emergence of new paradigms. In these paradigms, as will be examined in detail below, accountants are no longer used as inputs in transactions' recording phases.

Digitalization is changing traditional accounting paradigms not only in the recording phase but also in the analysis process. Especially due to the bigger data size, the more diversified data and the easier data access compared to the previous periods, problems may arise in the process of decision-making. The data obtained in this process will have to be integrated, structured, and classified according to business expectations, and the accounting reports transmitted to stakeholders will be more comprehensive and more controversial than before. As the stakeholders will have access to the information that accounting provided them with, the information will be checked for suitability, reliability, accuracy, and usefulness. This audit can take place as a cross-check. When performing these checks, the stakeholders will use artificial intelligence or digital analysis tools, which will call into question the methods of traditional accounting. For example, thanks to the digital technology tools, small and medium-sized business managers can record business transactions and generate performance reports on their own. While this phenomenon does not diminish the value of the

accounting information, it will lead stakeholders to change their perceptions of the roles accountants should play and the activities they should perform in providing the information. For example, operations such as the preparation of income or corporate taxes and the making of tax reconciliations can be conducted spontaneously with artificial intelligence. (PWC, 2018). In a way, this situation may cause the creation of digital account books. For example, Blockchain-based technological ledgers will be used in the later processes of digitalization. The prominent issue here is that how the accounting profession will adapt to the technological changes and how it will change the traditional procedures involved in professional operations. What is certain is that automation will significantly reduce the number of personnel required, especially in the traditional tasks. Thanks to automated processes, the repetitive routine tasks of surveyors will be eliminated so that accountants can focus more on the analytical work.

2.2. Changes in the Accounting Information Systems

Accounting information systems are generally defined as the acquisition, design, implementation and operation of systems that work together to collect, store, manage, process and receive data.

The accounting information systems ensure that the information needed in functions such as financial accounting, cost accounting, management accounting and auditing is ready in a timely and accurate manner. Accounting information systems help business managers and stakeholders in making correct and reliable decisions.

Accounting information systems covers financial systems managers, application leaders, designers, analysts, and accountants of these financial systems. Through these different roles, financial systems acquisition activities (business cases, system or vendor evaluation, service level agreement negotiations etc.), financial systems design or modification activities, financial systems integration activities, data management activities (data entering and leaving financial systems and instruments etc.), implementation of system controls, design of standardized reports and automation of financial

processes are included in the scope of accounting information systems (Busulwa & Evans, 2021).

Accounting information systems may help managers in identifying problems, taking action towards solutions and monitoring results. These actions can be aimed at directing the strategic goals of the organization or stay in the operational framework. The relationship in which the strategy dictates the structures that determine which accounting systems should be applied in firms can be gradually developed within linear boundaries so that accounting practices adapt to the increasing complexities in the business environment. Therefore, the role of accounting information systems in conceptualizing, detecting, and communicating new phenomena revealed by digitalization is also becoming effective (Bhimani, 2021: 66-136).

✓ Advances in digital technology are changing the functioning of accounting information systems through four key routes (Busulwa & Evans, 2021). Developments in digitalization are changing data usability and stakeholder expectations. Since much more internal and external data are available; the roles, activities, and outputs of these data in accounting may transform into new shapes.

✓ Second, advances in digital technology can change the functionality of the accounting information systems by significantly increasing the number and variety of internal and external applications that require integration with these systems. For example, software and hardware tools used by operations or different value chain functions may require real-time access to accounting standards and access to standards can be easily achieved through these systems. Examples of these applications and tools include mobile applications, data science applications, timeline applications, manager applications, operational applications, and IoT applications. The diversification of hardware and software tools stemming from the improvements in the accounting information systems will be able to improve integration with accounting standards, data management and participation in system architecture activities.

✓ Third, advances in the digital technology may lead to financial information being exposed to greater digital risk. This situation can increase the responsibility of and the necessity for regulatory agencies to ensure that cybersecurity, information privacy, and digital ethics risks are identified, mitigated through effective controls, and their negative impacts are minimized.

✓ Finally, digital technology advances are affecting the applicability and agility of accounting standards that are still in use. In this context, information systems that can be rapidly scaled and integrated with accounting standards, which can be made available in different environments (at work, home, online, outside the office etc.) and that can be reconfigured according to different architectures are becoming necessary. Failure to do so effectively can hinder the performance of all other accounting functions and put the life of the organization at risk.

3. THE IMPACT OF DIGITALIZATION ON THE CHANGE IN ACCOUNTANT PARADIGMS

Rapid developments in digital technology are likely to raise customer expectations, change customer behaviour, increase the capabilities of existing competitors while creating new competitors, and transform the foundations of competition. For this reason, strategic leaders and managers will expect support from accountants in different contexts and dimensions, and radical changes may take place in the nature and practices of the accounting business resultingly. To ensure that their value continues through the eyes of strategic leaders and managers, accountants must keep up with evolving digital technologies and find ways to benefit from advancements in the digitalization to both support their organizations and improve efficiency.

Thanks to automation trends such as machine learning as well as technologies like blockchain, some of the daily accounting operations will be carried out by the artificial intelligence instead of the accountants. Accountants, on the other hand, will turn to functions such as evaluating the actual economic interpretation of blockchain records or combining records with the economic reality and valuation instead of their traditional definition

functions. For example, while blockchain can confirm the existence of a borrower, it may not be able to analyse recoverable value or economic value. As another example, although the ownership of an asset can be verified by blockchain records, accountants will be able to secure its status, location, and true value. Blockchain will also allow for increases in accounting coverage by eliminating friction and providing certainty over transaction history and will be more cautious of functions that are currently considered too difficult or unreliable to measure, such as the value of data owned by a company (Institute of Chartered Accountants in England and Wales [ICAEW], 2018).

Given the vital position accountants hold and the roles they can play, they are critical to the success of digital transformation efforts. Accountants can play a critical partnership role in the field of digital business transformation. For example, they can implement secure business model changes and process designs, effectively manage growing transformation risks, and ensure optimal decisions based on reliable data and smart investments in enabling technologies (Busulwa and Evans, 2021).

Accountants who lay the groundwork to develop their digital technology, digital business, and digital transformation competencies mentioned above can then use these competencies to increase the chances of success of their digital transformation efforts and improve their transformation. For example, managers can develop their digital transformation, business, knowledge, and skills to improve the digital business and transformation competencies of their reports. In this way, managers may be empowered to shape appropriate digital, transformational, attitudes and behaviours, and thus foster a digital culture (Boulton, 2020).

Bank account statements are automatically issued and saved to the system with artificial intelligence algorithms, receipt photos are taken with phone cameras and as a result the photographs taken can be read by algorithms and saved in the system. Examples of such emerging tools include Xero, SAP S/4HANA, Tableau, XBRL, SAS and idaciti (Busulwa & Evans, 2021).

In the face of accountants who cannot build up their knowledge, skills and abilities in digital business and digital transformation, there is the possibility that digital business transformation efforts will become bottlenecks or obstacles for them. For example, accountants who lack the knowledge, skills and abilities of digital business and digital transformation are likely to be seen as lagging behind by those who have those knowledge, skills, and abilities.

The roles of accountants as initiative-taking providers of enterprise-wide exploration, investment and effective use of new or more advanced digital technologies and related tools are widely discussed (Busulwa & Evans, 2021). For example, the International Federation of Accountants (IFAC) recommends that accountants should actively participate in technology investment decisions to ensure investing in the right technologies and tools, implementing technology adoption projects quickly and effectively, and adopting the most appropriate technology (IFAC, 2018). As part of the digitalization of accounting, IFAC recommends that accountants should become partners with chief information officers (CIO) to raise awareness of the strategic value of different digital technologies and tools and to accurately address the value of their digital technology investments (IFAC, 2017).

As explained above, digitalization creates radical changes in the definition of accountancy and related concepts. Phenomena such as classification and recording in today's accounting definitions have disappeared with digitalization and a new definition of accountant has emerged. With this definition, the qualifications that should exist in the accountant have changed and new qualifications have been determined. These qualifications are described below in headings (Hood, 2020; Webb, 2020).

3.1. Strategic and Critical Thinking

Majority of the functions that were carried out by accountants are accomplished by algorithms now because of the digitalization. That is why, as the accountants got rid of routine Daily chores, they are able to focus on new responsibilities including ensuring efficiency, creating added value for their employers, trying to increase revenues and analysing

the data. Correspondingly, accountants are required to have strategical and analytical thinking skills due to the new paradigms.

3.2. Recognizing and Satisfying Emerging Needs

The accountants are expected to be qualified enough to answer emerging work demands in addition to have strategical and critical thinking skills. In other words, the profession will play a primary role in solving the potential problems faced due to the automation, making accurate forecasts, creating added-values for their employers and transforming these added-values into efficiency by producing creative ideas. In sum, accounting offices have to work almost as an innovation centre due to the new paradigms.

3.3. Integration and Cooperation Skills

Stemming from digitalization, the roles accountants play will be more varied, strategical and requiring close cooperation with people from other disciplines with varying expertise and skills. As the global businesses and remote working have become more prominent, it is almost an obligation for the accountants to have online cooperation and management skills.

3.4. Technological and Data Analysis Skills

The accountants need to improve and maintain their enthusiasm about both recent technologies and intellectual curiosity about what is next to ensure recognizing the current developments and examining most effective ways for gaining advantages. As the machine learning gets more complicated and new applications emerge, trying to find a way for maximizing both their employers' and own potentials becomes the basic function of the accountants. At the end, synthesizing these skills with abilities will allow accountants to solve problems effectively and handle the data accurately.

4. CONCLUSION

The accounting discipline, which is among the areas where the impacts of digitalization are seen most significantly, having radical changes and transformations undoubtedly. These changes and transformations revolutionize traditional accounting

Notion and allowing new notions and definitions to emerge correspondingly. In other words, as the functions in the traditional definitions like recording, classifying and reporting will be performed by artificial intelligence from now on, these definitions will change in accordance with the new paradigms.

On the other hand, in parallel with the changing concept of accounting, the definitions of accountants are also changing and undergoing transformations. In particular, new business models are loaded into the concept of accountant, and this leads to the emergence of different business lines. Correspondingly, the functions of raising customer expectations, changing customer behaviour, introducing new competitors, increasing the capabilities of existing competitors and transforming the foundations of competition will be performed by accountants with the new definition.

In this context, accounting offices will work as innovation centres, and accountants will develop their ability to think strategically and critically, to anticipate evolving needs, to learn technology and data analytics through integration and collaboration.

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