

# The Economic Value of Time in Arab Culture: New Evidence using Zimbardo Time Perspective Inventory (ZTPI)

*American Journal of Social Sciences and Humanities*

Vol. 3, No. 1, 63-72, 2018

e-ISSN: 2520-5382



Corresponding Author

Saeed H. Aldulaimi<sup>1</sup>

Marwan M. Abdeldayem<sup>2</sup>

<sup>1,2</sup>College of Administrative Sciences Applied Science University (ASU)-Kingdom of Bahrain

## ABSTRACT

The purpose of this study is to investigate the “time perspective” (TP) in the Arab culture in particular, how Arab people look at their commitments in life in terms of time relation such as appointment, deadline and punctuality. We adopted Zimbardo Time Perspective Inventory (ZTPI) as a questionnaire survey that was directed to a sample of 122 individuals from 5 different Arab countries namely: Bahrain, Egypt, Iraq, Jordan and Sudan. These countries were chosen to ensure representation of high, middle and low income countries. The research instrument consists of 56 different items that measure the five time perspective dimensions: Past-Negative (PN), Past-Positive (PP), Present-Hedonistic (PH), Present-Fatalistic (PF) and Future (F) (Zimbardo and Boyd, 1999). The overall reliability of the questionnaire is 0.868 and the reliability levels for the five main dimensions of TP were found to be satisfactory as measured by Cronbach Alpha. The findings reveal that Arab people are respecting many social norms and the Present-Hedonistic (PH) with a mean of 48.6 scored the highest value among the five dimensions of TP followed by the Future (F) dimension with a mean value of 43.9. However, the Present Fatalistic (PF) with a mean of 30.0 scored the lowest value. Hence, we concluded that Arab people participated in this study are mainly oriented by the present-hedonistic and future and are not really oriented by fatalistic issues. In addition, the results indicate that there are significant differences among the five dimensions of TP and no balance in TP is recognized as a main prerequisite for psychological health, happiness, satisfaction in life, self-esteem and general wellbeing. The significance of this study lies in the fact that this is the first study of its kind that applied the ZTPI model in the Arab World. This study recommends that future research should address the use of a wider pool of participants and include some control variables such as age, education, and geographic location. Further attention should also be given to get insights from the psychology literature to determine the proper way of changing the time perspective.

**Keywords:** ZTPI, Economic value of time, Time perspective, Arab culture.

**DOI:** 10.20448/801.31.63.72

**Citation |** Saeed H. Aldulaimi; Marwan M. Abdeldayem (2018). The Economic Value of Time in Arab Culture: New Evidence using Zimbardo Time Perspective Inventory (ZTPI). *American Journal of Social Sciences and Humanities*, 3(1): 63-72.

**Copyright:** This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/)

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**History:** Received: 26 September 2018/ Revised: 29 October 2018/ Accepted: 30 November 2018/ Published: 20 December 2018

**Publisher:** Online Science Publishing

## 1. INTRODUCTION

Time is the most important resource to everybody but not all people are using the same 24 hours productively. The time perception is also different from culture to another. Time in Arab culture is linked to the concept of the time which is eternal and associated with the absolute, where its beginnings start from the creation of man and ends anonymously on the Day of the Great Resurrection. We reviewed numerous studies in order to answer the question of Does time perspective (TP) have an impact on Arab's daily lives in dealing with time?

Arab people are dealing with time with the idea of "does the world fly" and "why are you in a hurry?". There is a widespread myth in Arab community that "I do not have time". While it is 24 hours owned by the young and old people, the active and lazy and the rich and poor. On the other hand, Western people remark that Arab are dealing with time with "inshallah" (God willing), and explain how they are suffering in dealing with the Arab employees and their failure to use specific time.

Overall, time is important in work, social life and the lives of individuals themselves. At work we all realize the importance of time commitment to accomplish tasks and what can be caused by wasting time. Examples of wasting time in Arab culture include:

- Meetings and wasting time taking out of the agenda
- Spend long time to arrive to work because of transportation
- Personal phone calls
- Worship rituals
- Lateness and absenteeism
- Social network (Parents and children excuses)
- Lack of crucial rules and guidelines
- Disorganization by leaving workers waiting without work
- Poor communication and spend time to understanding the administrative orders
- Nature of the tasks which creates confusion, duplication of work
- Workers may work without knowing exactly who should do what

In governmental institutions, it is easy to ask customers to wait or to come back next day. However, in the private and productive sectors the lack of timely completion of work can result in significant material losses as companies compete to perform their customer's services. Time in Arab social life acquires the flexibility and routinely as in most cases Arab people used to spend hours waiting late meeting or appointment. Majority of them do not stick to appointments between friends and family.

Unlike the western perspective of time "i.e. Time is Money". Western people are often able to determine the value of minutes or the price of minutes. In the world of economics and in human life, money is a means of fulfilling human needs and an easy tool for economic activity. Therefore, money is very important for every human being.

In management studies, there is an increasing interest in empirically investigating the phenomenon of time orientation by utilizing the time perspective inventory (TPI) introduced by Zimbardo's validated model, popularization of its significance and, most importantly, with a well-publicized tool for its assessment—the ZTPI model classified TP into five different time dimensions : (1) Past-Positive (PP), (2) Past-Negative (PN), (3) Present-Fatalistic (PF), (4) Present-Hedonistic (PH), and (5) Future (F) ([Gonzalez and Zimbardo, 1985](#); [Zimbardo and Boyd, 1999](#)). The generally recognized concept of TP with promptly acknowledged

measurements motivated an innovative utilization of the TPI. Its legitimacy and unwavering quality were tried both in the U.S. what's more, abroad, and it found pragmatic applications from general training to treatment of posttraumatic stretch issue (Zimbardo *et al.*, 2012; Sword *et al.*, 2014) or direction for Alzheimer parental figures (Potgieter, 2012; Kosťal *et al.*, 2015).

The purpose of this study is to investigate the time perception or time perspective in the Arab culture. How Arabs look at their commitments in life in terms of time relation such as appointment, deadline and punctuality.

This study attempt to answer the following questions:

1. Do Arab people respect time?
2. Do people in the Arab culture have similar or different views of the past, present, and future?
3. Does the time orientation of Arab affect their satisfaction with life, happiness, self-esteem and general wellbeing?

The rest of this paper is structured as follows: section (2) presents the theoretical framework and literature review. Section (3) explains the methodology of the study. Section (4) reveals the research findings and results, while section (5) provides the concluding comments of the study.

## **2. THEORITICAL FRAMEWORK AND LITERATURE REVIEW**

Time perspective is an essential idea important for the impression of time and that has been picking up noticeable quality in the most recent decade. Time perspective relates to a person's view on his or her past and future at a given time (Fraisse, 1967). Time perspective interfaces past, present, and future (Zimbardo and Boyd, 1999) words: "between the unique, mental developments of earlier past and foreseen future occasions lies the solid, exactly focused portrayal of the present" (p. 1271). Furthermore, these analysts imagine time perspective as the manners by which people parcel the stream of their own encounters into time zones or worldly classifications (see likewise Zimbardo and Boyd (2008)).

Demeanors to time may vary between various societies in frequently very huge ways. For instance, being late for an arrangement, or setting aside a long opportunity to get serious, is the acknowledged standard in most Mediterranean and Arab nations, and in addition in quite a bit of less-created Asia. Such propensities, however, would be utter horror in reliability cognizant USA, Japan, England, Switzerland, and so on. In the Japanese train framework, for instance, "on time" alludes to expected postponements of short of what one moment, while in numerous different nations, up to fifteen minutes elbowroom is as yet considered "on-time".

Social psychologist Levine (1997) wrote in his book *Geography of Time* that the vast majority of the distinctions are, to an extensive degree, unsurprising as per statistic, monetary and ecological attributes. For instance, individuals will in general move quicker in spots with essential economies, a high level of industrialization, bigger populaces, cooler atmospheres and a social introduction toward independence. Spots with dynamic economies put more prominent incentive on time, and places that esteem time are bound to have dynamic economies, in a commonly fortifying cycle. Subsequently, in all cases, the wealthier the general public, the quicker it will in general move. Firmly connected to financial wellbeing as a factor in the pace of life is industrialization. Anthropologist "Allen Johnson" has depicted a developmental movement delivered by industrialization from a "period excess" society to a "period abundance" society to a "period starvation" society, the last being the means by which he portrays most created industrialized nations.

Individuals in large cities move quicker than their partners in littler towns and provincial regions. In one investigation of the conduct of kids in grocery stores and stores, the normal city youngster was appeared to walk almost twice as quick as their residential area reciprocals, and invested 33% of the energy cooperating with agents and different customers, and fundamentally less time physically contacting items in the store. Different investigations have discovered a relatively ideal relationship between populace size and strolling speed. Maybe obviously, life will in general be slower in more sizzling spots, and there is a solid relationship between the atmosphere (as estimated by normal greatest temperatures) and how moderate the rhythm of life is. This could result from a general absence of vitality in the weakening warmth, or simply the way that individuals in hotter atmospheres basically set aside the opportunity to appreciate life.

In the Arab culture, Islam is supposed to be a complete way of life (Ahmad, 2003; Abdeldayem and Aldulaimi, 2018; Abdeldayem and Darwish, 2018). God has blessed us with life, and every person has a specific life and God does not provide an hour and does not delay, and if the time of death will ask the slave about his time as he spent and his age lost, and all of us will be put in this test and will ask for every minute. The exploitation of time to win the satisfaction of God: The worshipers of the Rahman are keen to exploit every atom of their limited ages in an attempt to win the satisfaction of God to win Paradise and stay away from fire, so Muslims are usually keen to provide what they can of good things and faith in God and recognize the value of time in determining its fate, because the most important and greatest test in the life of mankind is to escape the punishment of God and his wrath before the end of life and go to smell, so we will be held accountable for every second of what we offered, whether good or evil, In Islam lives are structured around the daily prayers *“By Al-’Asr (the time). Verily, man is in loss. Except those who believe and do righteous good deeds, and recommend one another to the truth and recommend one another to patience.” (Quran 103). In addition, the Quran says, “O you who believed, fulfill [all] contracts”. And: “fulfill [every] commitment. Indeed, the commitment is ever [that about which one will be] questioned” (17:34).*

McGrath and Tschan (2004) recognized four procedures in transient parts of regular daily existence: time utilize, pace of life, time recognition, and time introduction. Time utilize alludes to a person's distribution of time over day by day exercises, for example, working, eating, recreation time, travel time, and individual consideration. Pace of life alludes to the speed of doing ordinary exercises. Time observation is about how people judge the progression of time and is frequently examined by soliciting people to evaluate terms from explicit worldly interims and sentiments about the progression of time when all is said in done. At long last, time introduction alludes to how individuals contrast the present with the future (expectations and fears).

Hall (1989) dichotomized time introductions into monochronic and polychronic. He contends that individuals with monochronic time introduction will in general like to complete one thing at once and depend on timetables and division. Then again, individuals with polychronic time introduction will in general complete a few things without a moment's delay, and they stretch the fruition of exchanges instead of adherence to preset timetables. Hall (1989) attests that Westerners are probably going to be monochronic, while Latin American and Mediterranean individuals will in general have a more polychronic introduction. Hall's idea of time introduction has likewise pulled in the consideration of diverse researchers. For instance, Brislin and Kim (2003) have recommended a firmly related division of clock and occasion time. Clock-time societies, similar to the USA, hold fast to timetables and promptness, while occasion time societies, similar to Latin America, run more with the characteristic stream of get-togethers. Albeit maybe still predominant, these qualifications may obscure with globalization and the development of innovation and performing various tasks in every single created nation.

Trompenaars and Hampden-Turner (1998) inspected time skyline in 42 nations. Time skyline alludes to the length of the arranging skyline and the period of time a man uses to consider the past or future. Confucian societies scored higher on long haul arranging, while Western societies scored higher on transient arranging.

In the Arab culture, Muslims are required to have to use their time wisely. Islam teaches its supporters to rehearse all demonstrations of worship (Ibadat) at explicit occasions as expressed in Quran, "Execute As-Salat. Verily, As-Salat (prayer) is charged on the devotees at settled occasions" (5:103). It happens five times each day and educates discipline. A similar thing applies to fasting amid the long stretch of Ramadan – when to begin and when to end it. As to Hajj (pilgrimage to Makkah), it is a commitment that can't be performed aside from inside a specific period and in an explicit place. Along these lines, Islam accentuates discipline whether it is identified with timing, conditions or principles. A restrained specialist won't just be reliable and dependable yet will likewise maintain the remaining of an association from defamation and untruths. Truth be told, accentuation is put upon exchange and direction at whatever point clashes emerge (Abdeldayem, 2009; Aldulaimi, 2016). The main objective of Islamic economics is to achieve (falah) in the world and the hereafter, while the main objective of conventional economics is merely worldly welfare. Islamic economy is not only wanting to achieve profit but expecting spiritual gain and al-falah.

### **3. STUDY METHODOLOGY**

This section explains the methods used to collect and analyze data. Therefore, it includes the ZPTI adopted questionnaire, statistical techniques used as well as procedures followed to achieve the research purpose.

#### *3.1. Questionnaire*

As mentioned earlier, the research instrument used in this study is the original English version of Zimbardo Time Perspective Inventory (ZPTI). This questionnaire contains 56 items that measure the five TP dimensions described earlier: Past-Negative (PN) (e.g. "I think about the bad things that have happened to me in the past"), Past-Positive (PP) (e.g. "It gives me pleasure to think about my past"), Present-Hedonistic (PH) (e.g. "I take risks to put excitement in my life"), Present-Fatalistic (PF) (e.g. "My life path is controlled by forces I cannot influence"), and Future (F) (e.g. "I complete projects on time by making steady progress") (Zimbardo and Boyd, 1999). Respondents were asked to give their answer for each item on a 5-point Likert scale from 1 (*less important*) to 5 (*very important*).

#### *3.2. Data and Procedures*

Data was collected from Arab people who are living in different Arab countries (Such as Bahrain., Egypt, Iraq, Jordan and Sudan). Worth mentioning that we utilized an online survey that directed to a sample from different Arab countries, since using on-line surveys is generally acceptable to survey participants and does not impact data quality when compared with paper-and-pencil surveys (Church, 2001).

A total of 122 respondents agreed to participate in this research effort, with the composition of 66.1 % male and 33.9 % female (refer to figure 1). Participants ranged in age from 20 to 60 with an average of 35.2 years (see figure 2). There was no age discrepancy between gender groups. Composition of age groups were also controlled so as to occupy equal proportions: 20's (19.4%), 30's (32.3%), 40's (29 %), and 50's (19.4%). Levels of education were generally high since the questionnaire was in English and only highly educated people can understand it. Nationality is illustrated in figure 3. It can be seen that the questionnaire distrusted to several Arab nationalities

including Bahrain, Egypt, Jordan, Iraq and Sudan. These Arab countries were chosen to represent the three economical categories in the Arab world i.e. high, middle and low income countries.

## Gender

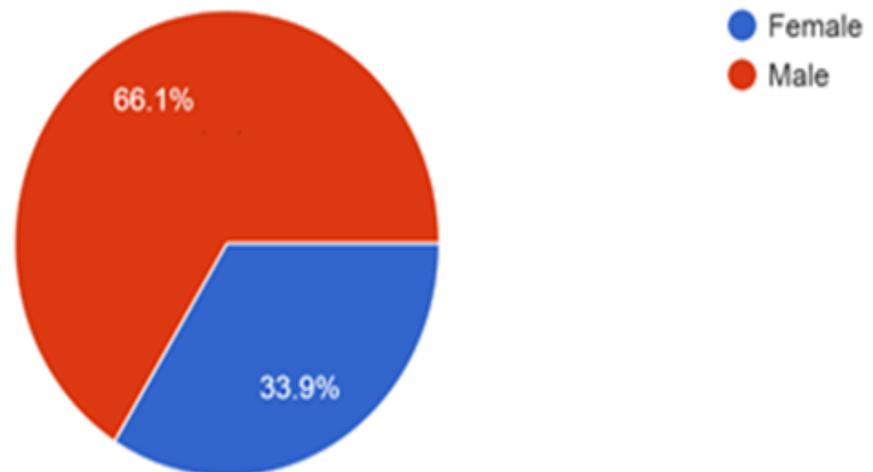


Figure-1. Analysis of Respondents Gender

## Age

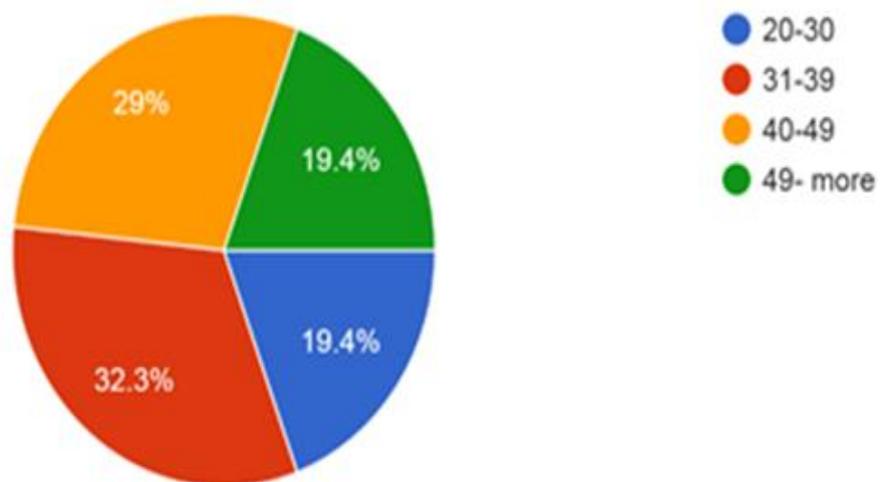


Figure-2. Analysis of Respondents Age

## Nationality

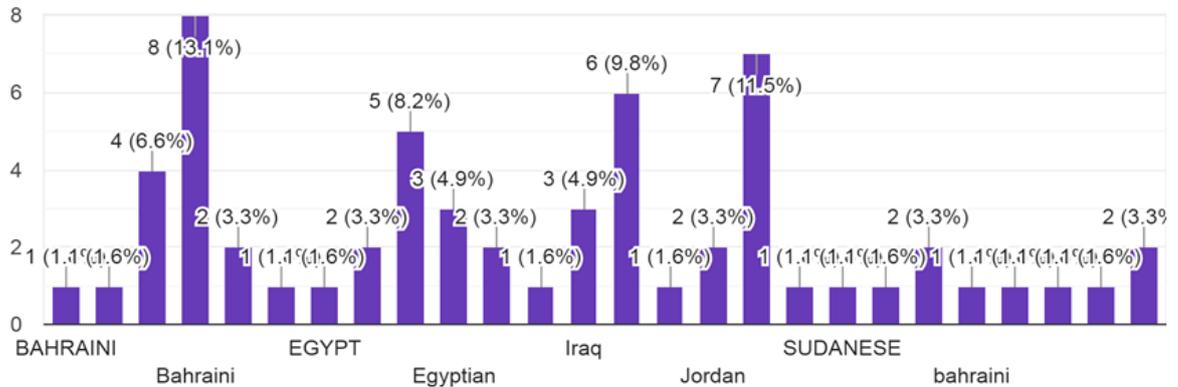


Figure-3. Analysis of Respondents Nationality

## 4. RESEARCH FINDINGS AND RESULTS

The data collected for this study were entered to SPSS version 21 in order to conduct some statistical analysis. We used a Confirmatory Factor Analysis. The aim was to determine whether or not for each part of the adopted questionnaire, the data set was consistent with the ZPTI model. Despite the ZPTI questionnaire is a well validated and reliable tool as proved by several researchers in USA, Italy, France, Greece, Russia, Czech Republic, Spain, Lithuania and Sweden and Brazil (see Apostolidis and Fieulaine (2004); D'Alessio *et al.* (2003); Di'az-Morales (2006); Anagnostopoulos and Griva (2012); Lukavska *et al.* (2011); Carelli *et al.* (2011) and Milfont *et al.* (2008). Nevertheless we tested the reliability of the questionnaire using Cronbach Alpha. Table (1) below shows an overall reliability of 0.868 and the reliability levels for the five main dimensions of TP are 0.873 for PN, 0.904 for PH, 0.878 for F, 0.886 for PP and 0.916 for PF. All levels of reliability are found to be satisfactory.

Table-1. Cronbach Alpha of the variables

Dimensions	Cronbach Alpha	Items No
Past-Negative:	0.873	10
Present-Hedonistic:	0.904	15
Future:	0.878	13
Past-Positive:	0.886	9
Present-Fatalistic:	0.916	9
(Total)	0.868	56

Table-2. Descriptive statistics for the five TP dimensions

		PN	PH	F	PP	PF
N	Valid	122	122	122	122	122
	Missing	0	0	0	0	0
Mean		31.8279	48.6311	43.9180	33.3115	30.0000
Median		33.0000	50.0000	45.0000	35.0000	29.0000
Std. Deviation		7.17744	12.50864	7.22323	7.05244	9.51901
Variance		51.516	156.466	52.175	49.737	90.612
Minimum		13.00	28.00	26.00	16.00	13.00
Maximum		44.00	69.00	55.00	45.00	45.00

It can be seen from table (2) the mean, median, standard deviation, minimum and maximum of the responses. Table (2) reveals that the Present-Hedonistic (PH) with a mean of 48.6 represents the highest value among the five

dimensions of TP followed by the Future (F) dimension with a mean value of 43.9. This result indicates that Arab people are mainly oriented by the present-hedonistic and future. This surprising result can be explained by the fact that participants were exposed to the purpose of this study. Therefore, they tend to choose the optimal answers that can put them in an excellent position in terms of best time usage in Arab culture. Furthermore, this result can also be attributed to the type of participants in this research effort, as the vast majority of respondents (more than 60%) are highly educated. Consequently, participants tend to have plans for future and are experts in organizing their daily activities to pursue their vision.

On the other hand, the present fatalistic (PF) with a mean of 30.0 representing the lowest value among the five dimensions of TP. This result implies that Arab people participated in this study are not really oriented by fatalistic issues. This result found to be in line with Islamic culture and the Islamic principles that humans have the absolute freedom to choose their actions. For instance, the question of "my life path is controlled by forces I cannot influence" is against Muslims faith and believes, since they believe that there is no mysterious or hidden power affecting their behavior and therefore they are accountable for all their actions throughout their lives.

Finally, table (2) reveals that there are big differences among the five dimensions of TP and no balance in TP is recognized as a main prerequisite for psychological health, happiness, satisfaction in life, self-esteem and general wellbeing.

## **5. CONCLUSION AND RECOMMENDATIONS**

The purpose of this study is to investigate the time perspective in the Arab culture. How Arabs look at their commitments in life in terms of time relation such as appointment, deadline and punctuality.

The findings of this study reveal that the sample put stress and high score on the Present-Hedonistic (mean 48.8). This result is surprising if we know that previous studies revealed that Arabs are tend to be influenced by the past. [Aldulaimi and Sailan \(2011\)](#) reported that Qatar scored low on the cultural dimension. Long haul Orientation (LTO). Long haul Orientation implies that a general public qualities temperances which are arranged towards future prizes, specifically, persistence and thrift ([Hofstede and Hofstede, 2005](#)). Transient introduction (STO) suggests a general public qualities excellences identified with the over a wide span of time, regard for custom, safeguarding of "face," and satisfaction of social commitments ([Hofstede and Hofstede, 2005](#)). The outcomes show that individuals who maintain a present-Hedonistic introduction will in general present both more worry about their days and appreciate the relationship, for example, the inquiry that get high score "I like my cozy connections to be enthusiastic".

The findings also indicate that Arab culture put high stress on the self-esteem which affecting the Arab mind that dominated by the idea of having the truth and the right opinion. This is based on a heritage that places the Arabs in the first place among the peoples of the world. The literary and intellectual heritage of the Arab world since its early days bears this tendency, and the Arab intellectual seeks to bring down the past to its present. The result of this view is a double manifestation and practically in the modern era, but in fact it is stuck to the ancient centuries.

Even though, the results reveal that the second interest of time orientation of the sample was future (a mean of 43.9). This result is justified that the majority of the sample were educated and they are considering the importance of future. Nevertheless, it seems that Arabs in this study admiring the present and they are positive to their past as shown from the factor of past positive.

The results of this study are in line with previous studies particularly the study of [Zimbardo and Boyd \(1999\)](#) who found that past positive situated people were bound to keep a clock on their work areas. Besides, individuals

with Present-Hedonistic exhibited a negative connection to religiosity, showing that the "living for joy" introduction. [Zimbardo and Boyd \(1999\)](#) revealed the connections between both Present-Hedonistic and Future. Along these lines, one would expect that future situated people would likewise be religious arranged. However, Future was contrarily associated with self-saw family monetary status. Subsequently, those people who see their families as having a low monetary status will in general be future situated.

Taking everything into account, the discoveries present introductory help for the build legitimacy of the Brazilian-Portuguese form of the ZTPI. The general discoveries were in accordance with past investigations, showing that both the five time perspective measurements can be distinguished psychologically, and their example of association with different factors are equivalent crosswise over societies. We trust these discoveries bolster the significance of time point of view, as worldly angles are available in any human movement. [Zimbardo and Boyd \(1999\)](#) argue that this TP dimension "reveals a belief that the future is predestined and uninfluenced by individual actions" (p.1278). Hence, for older adults a present-fatalistic orientation may be expected as their future is expectantly shorter.

The findings of this study present initial support for the build legitimacy of the adaptation of the ZTPI. The general discoveries were in accordance with past investigations, demonstrating that both the five time perspective measurements can be distinguished intellectually, and their example of association with different factors are practically identical crosswise over societies. We trust these discoveries bolster the significance of time perspective, as fleeting perspectives are available in any human action.

Future research in this field should seek to address the use of a wider pool of participants and include the terms of age, education, and geographic location. Future research might thus focus on insights from the psychology literature to determine the proper way of changing the time perspective such as satisfaction with life, happiness, positive affect, psychological need satisfaction, self-determination and vitality.

## REFERENCES

- Abdeldayem, M.M., 2009. An examination of social disclosures by Islamic banks: Evidence from UAE. *The Journal of American Academy of Business*, 14(2): 350-356.
- Abdeldayem, M.M. and S.H. Aldulaimi, 2018. The economic islamicity index, between islamicity and universality: Critical review and discussion. *International Business Management*, 12(1): 46-52.
- Abdeldayem, M.M. and S. Darwish, 2018. Does risk perception influence the accuracy of decisions in the Arab culture? *International Journal of Economic Research*, 15(2): 529-539.
- Ahmad, A., 2003. Mawdudi's concept of Shari'ah. *The Muslim World*, 93(3-4): 533-545.
- Aldulaimi, S.H., 2016. Fundamental islamic perspective of work ethics. *Journal of Islamic Accounting and Business Research*, 7(1): 59-76. Available at: <https://doi.org/10.1108/jiabr-02-2014-0006>.
- Aldulaimi, S.H. and S. Sailan, 2011. Examining national culture of Qatar. *Australian Journal of Basic and Applied Sciences*, 5(10): 727-735.
- Anagnostopoulos, F. and F. Griva, 2012. Exploring time perspective in Greek young adults: Validation of the Zimbardo time perspective Inventory and relationships with mental health indicators. *Social Indicators Research*, 106(1): 41-59. Available at: <https://doi.org/10.1007/s11205-011-9792-y>.
- Apostolidis, T. and N. Fieulaine, 2004. French validation of the Zimbardo time perspective inventory (ZTPI). *European Review of Applied Psychology*, 54(3): 207-217.
- Brislin, R.W. and E.S. Kim, 2003. Cultural diversity in people's understanding and uses of time. *Applied Psychology*, 52(3): 363-382. Available at: <https://doi.org/10.1111/1464-0597.00140>.

- Carelli, M.G., B. Wiberg and M. Wiberg 2011. Development and construct validation of the Swedish Zimbardo time perspective inventory. *European Journal of Psychological Assessment*, 27(4): 220–227. Available at: <https://doi.org/10.1027/1015-5759/a000076>.
- Church, A.H., 2001. Is there a method to our madness? The impact of data collection methodology on organizational survey results. *Personnel Psychology*, 54(4): 937-969. Available at: <https://doi.org/10.1111/j.1744-6570.2001.tb00238.x>.
- D'Alessio, M., A. Guarino, V. De Pascalis and P.G. Zimbardo, 2003. Testing Zimbardo's Stanford time perspective inventory (STPI)-short form. *Time & Society*, 12(2-3): 333-347. Available at: <https://doi.org/10.1177/0961463x030122010>.
- D'az-Morales, J.F., 2006. Factor structure and reliability of the Zimbardo temporary perspective inventory. *Psicothema*, 18(3): 565-571.
- Fraisse, P., 1967. *Psychology of time*. Paris: University Presses of France.
- Gonzalez, A. and P.G. Zimbardo, 1985. Time in perspective. *Psychology Today*, 19(3): 20-26.
- Hall, E.T., 1989. *Beyond culture*. New York: Anchor Books Editions.
- Hofstede, G. and G.J. Hofstede, 2005. *Cultures and organizations: Software of the mind*. 2nd Edn., New York: McGraw-Hill.
- Koštal, J., M.K. Baker, K. Lukavska and J. Lukavsky, 2015. Short version of the Zimbardo time perspective inventory (ZTPI-short) with and without the future-negative scale, verified on nationally representative samples. *Time Society*, 25(2): 169-192. Available at: <https://doi.org/10.1177/0961463x15577254>.
- Levine, R., 1997. *A geography of time: The temporal misadventures of a social psychologist, or how every culture keeps time just a little bit differently*. New York, US: Basic Books.
- Lukavska, K., M. Klicperova-Baker and J. Lukavsky, 2011. ZTPI-Zimbardu in the questionnaire of the time perspective. *Czechoslovakian Psychology*, 55(4): 356-374.
- McGrath, J.E. and F. Tschan, 2004. *Temporal matters in social psychology: Examining the role of time in the lives of groups and individuals*. Washington, DC: American Psychological Association.
- Milfont, T.L., P.R. Andrade, V.S. Pessoa and R.P. Belo, 2008. Testing Zimbardo time perspective inventory in a Brazilian sample. *Interamerican Journal of Psychology*, 42(1): 49-58.
- Potgieter, J.C., 2012. The time perspective of the Alzheimer caregiver. *Dementia*, 11(4): 453–471.
- Sword, R.M., R.K. Sword, S.R. Brunskill and P.G. Zimbardo, 2014. Time perspective therapy: A new time-based metaphor therapy for PTSD. *Journal of Loss and Trauma*, 19(3): 197-201. Available at: <https://doi.org/10.1080/15325024.2013.763632>.
- Trompenaars, F. and C. Hampden-Turner, 1998. *Riding the waves of culture: Understanding diversity in global business*. 2nd Edn., New York: McGraw-Hill.
- Zimbardo, P.G. and J. Boyd, 2008. *The time paradox: The new psychology of time that will change your life*. New York: Free Press.
- Zimbardo, P.G. and J.N. Boyd, 1999. Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77(6): 1271–1288. Available at: <https://doi.org/10.1037/0022-3514.77.6.1271>.
- Zimbardo, P.G., R. Sword and R. Sword, 2012. *The time cure: Overcoming PTSD with the new psychology of time perspective therapy*. San Francisco: John Wiley & Sons.

**Online Science Publishing** is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.