# Relationship between Organizational Culture and Knowledge Hiding in Software Industry: Mediating Role of Workplace Ostracism and Workplace Incivility

Mahira Shah (Corresponding author)
Lahore College for Women University, Lahore, Pakistan
Email: mahirashah171@yahoo.com

Maryam Saeed Hashmi
Lahore College for Women University, Lahore, Pakistan
Email: maryamhashmi57@hotmail.com

**Abstract**

Increasingly it is recognized that in the software industry, knowledge hiding can cause serious economic losses to organizations. This study seeks to find the relationship between organizational culture and knowledge hiding. We further focused on the mediating role of workplace ostracism and workplace incivility with the help of various theories in the link between organizational culture and knowledge hiding which are also the antecedents of knowledge hiding. Background of knowledge hiding is still not extensively explored in previous studies yet and this research focused keenly on it. The sample size of the study consists of 300 employees working in three software houses of Pakistan as well as structural equation modeling was used with cross-sectional deductive positivist approach, whereas research design was explanatory and descriptive in nature. We found that organizational culture has a significant relationship with knowledge hiding and additionally, workplace ostracism and workplace incivility as mediators created positive channels between organizational culture and knowledge hiding. However workplace ostracism and workplace incivility partially mediate in this study.

**Keywords:** organizational culture, workplace ostracism, workplace incivility, knowledge hiding, software industry.

## 1. Introduction

In this era of knowledge economy, competitive advantages for the organizations are necessary which makes them unique from their competitive organizations and in this regard knowledge management in firms are now being seen as a competitive edge for the firms (Pan et al., 2018). Through knowledge management, firms become capable for service innovation and it helps to earn the confidence of customers by providing them their services in a new manners and for this purpose knowledge transfer among employees is considered important (Cheng et al, 2009) but in service industry (software houses) employees do not like to share their knowledge as much, and they prefer to hide knowledge. So besides focusing on knowledge sharing, Connelly et al. (2012) determined that knowledge hiding is pre-dominant in many service organizations and it hurts

knowledge sharing in organizations (Connelly et al., 2012). So it becomes a key area of concern that why employees hide knowledge Peng, (2013) and do not create a responsive knowledge sharing organizational culture (Serenko & Bontis, 2016). By seeing, that knowledge hiding has a negative impact on organizations, the backgrounds of knowledge hiding is still not extensively explored much (Anand & Hassan, 2019).

Moreover, Fagbohungbe et al. (2012) gives an insight onto such elements which are responsible to produce knowledge hiding at the workplaces (antecedents of knowledge hiding) and conferring to Davenport and Prusak (1998) organizational culture reflected one of the antecedents of the knowledge hiding. Rendering to Serenko and Bontis (2016) research, culture of an organization which is positive, influences positively the behavior of knowledge and share the knowledge, so can assume that culture which is negative, influences knowledge behavior negatively and hide the knowledge, so, our research supplements a growing body of investigation that attempts to open the black box between the organizational culture and knowledge hiding relationship. In service industry different deviant behaviors already embedded in mature culture and in this mature organizational culture workers may choose to follow some deviant behaviors Stefano et al. (2017) such as workplace ostracism and workplace incivility, just to save themselves from suffering materialistic losses and as a result of workplace ostracism and workplace incivility workers start knowledge hiding and these two variables become a mediators in a direct relationship between organizational culture and knowledge hiding. Workplace ostracism is the organizational phenomenon which is pervasive in nature and it effects the employee's engagement in work and also the performance in service organization. As well as incivility at workplace garbles different structural dynamics of a firm and it can taint the whole culture by generating such environment which is quite unfriendly somehow arrogant and rude which makes an atmosphere stressful (Vickers, 2006). Workplace ostracism and workplace incivility share so many elements which are common in two of them and mostly employees ostracize and behave uncivilized to those who have sharp mind and sometimes to those who are not much knowledgeable. When employees face workplace ostracism and workplace incivility, they will be more persuaded to withhold the precious knowledge which is requested by the other employee. However, the linkage between organizational culture and knowledge hiding has not been inspected in empirical study. Knowledge hiding can be elaborated with the help of this theory on the behalf of which organizational culture promotes knowledge hiding.

A popular frame of reference "Social exchange theory (SET)" explicates the activities or behavior of employees who engage in different levels of exchange processes with other employees within a social system (Serenko & Bontis, 2016). This theory illuminates different actions of individuals of the social system in which members who value by the other participants give the same value to the others. It is also called a two-way reciprocal exchange because, participants interact with other members in this process and it is also based on expectations from others (Molm et al., 2007). This theory of exchange often gives a base that the participants stay motivated with their self-interest in which they gain benefits, and giving something prompts the act of exchange on receiver's behalf, and reciprocation may support the building of such process in which mutually rewarding exchange develops.

With the help of Social exchange theory many behaviors have been seen and this theory can also apply at workplace setting for understanding the several types of human behavior in which sharing of knowledge and hiding of knowledge are included (Liu et al., 2012; Lin & Lo, 2015; Bontis & Serenko, 2016). It postulates that workers in an organization are willing to share and transfer their knowledge with their fellow co-workers because they think that they get a same reaction from the other side and receive something in return which is valuable, this act has some expectations regarding future. Same as, when employee hides knowledge from others, others will not share their information in an hour of your need and hide knowledge.

For example, employee X may hide his or her knowledge from the employee Y even if he requested, then employee X should be prepared for the next situation that employee Y maybe will not tell the information and will give excuses to hide knowledge in future.

Reciprocation plays a vital role in knowledge hiding and there are some empirically and theoretically grounded arguments with respect to Cropanzano and Mitchell (2005) this theory shows that individuals may not only reciprocate those actions which are positive in manner but also those who have a negative impact.

Knowledge hiding is a concept which is emerging nowadays because, development of the organization is challenging and for the sake of success sharing of knowledge is considered necessary, but most employees hide knowledge from other employees in an organization in order to maintain their own portfolios and also to get rewards as compared to other employees. According to Long (1997) culture is a factor which shapes the creation and allows employees to hide or either share the knowledge but once they follow it becomes a mature culture. Supplement literature shows that organizational culture examined with knowledge sharing but black box among organizational culture and knowledge hiding is still not open. Research illustrates that knowledge fostering culture (a culture which allows employees to share knowledge) always emphasizes the creativity and development of an organization Tseng and Fan (2011) but when employees do not want to share their information they start hiding knowledge and we supposed that organizational culture is a determinant of knowledge hiding. To find the relationship of this study Serenko and Bontis (2016) also provided a base and explores different antecedents of knowledge hiding which becomes a reason after sometime to hide knowledge by employees because these antecedents are negative and at one point organizational culture becomes mature and employees who newly join the firm should adopt such actions which are already a part of it. According to Serenko and Bontis (2016), positive organizational culture influences knowledge behavior positively, so we can assume that negative organizational culture influences knowledge behavior negatively such as knowledge hiding and therefore, we will test that organizational culture has a significant relation with knowledge hiding or not.

In the present study, workplace ostracism and workplace incivility espoused as a mediator among the relationship of organizational culture and knowledge hiding. These antecedents were selected because both of them share a lot in common and provide support to our model in a unique way. For organizations, this is particularly puzzling that when it comes to workplace ostracism Ferris et al. (2017) and workplace incivility Andersson and Pearson (1999) both workplace ostracism and workplace incivility have some common characteristics they both of them are largely focused on low-intensity

behavior which is counter-normative and are of an ambiguous nature (Andersson & Pearson 1999; Ferris et al., 2008), they both are related to several those outcomes which are negative Robinson, OReilly and Wang (2013); Schilpzand et al. (2016), also these of the two variables commonly contended at the workplace.

Hartgerink et al. (2015) examined about the workplace ostracism that, when a culture of an organization spreads exclusion and ignorance it automatically creates a sense of stress all-around and due to this condition of stress workplace ostracism and in-result may influence the hiding of knowledge pattern as a particular deviant behavior in an organization (Connelly et al. 2012).

We have selected this construct workplace ostracism because due to organizational culture many employees face this mistreatment construct in the form of ignorance by other employees and this is vital in organizations for study purpose (Ferris et al., 2017). When the employee faced the ostracism at the workplace, a worker will be persuaded more to deny the knowledge which is requested by other workers. However, the association among the workplace ostracism and knowledge hiding not expansively inspected pragmatic investigation by scholars. With the help of ostracism at a workplace as a mediator, it becomes easy for the workers to study more deeply about the linkage between the organizational culture and the knowledge hiding in a better way, with respect to Riaz et al. (2019) workplace ostracism influences knowledge hiding positively. So, therefore, we can assume that when negative organizational culture endures, workplace ostracism happens in return, which subsequently leads them to knowledge hiding.

As well as, our second mediator, workplace incivility among the linkage among organizational culture and hiding of knowledge, which provides a base to the relationship as a crystallizer. Workplace incivility arises in management literature nowadays as a significant construct and management practitioners give consideration to this topic as reports of this process indicated that this topic is widespread between employees (Holm et al., 2015). Workplace incivility also leads to turn over intention of an employee in a firm Reio and Trudel (2013) which is also a consequence of knowledge hiding, on the behalf of it we can speculate that workplace incivility is an antecedent of knowledge hiding and a crucial systematic and structured process of workplace incivility can prompt knowledge hiding. When the culture of an organization is negative, workplace incivility happens, and its shadows that workplace incivility mediates the link between the organizational culture and the knowledge hiding. Rendering to Aljawarneh & Atan (2018) workplace incivility also influences knowledge hiding to happen as Shim (2010) worked that, workplace incivility impacts negative on the intention to share knowledge of employees, due to this they prefer to hide knowledge. The value-added support of this research entice the attention that, when employees do not share knowledge when they are facing workplace incivility, they maybe hide knowledge and the severity of this subject is not investigated much in literature yet.

## 1.1 Research Questions

The key aim of this investigation is to find out the relationship between organizational culture and knowledge hiding in context of Pakistani service industry (software industry) therefore, precisely the objectives include:

- ➢ To find out the relationship between organizational culture and knowledge hiding in software industry.

- ➢ To find out the mediating effect of workplace ostracism in relationship between organizational culture and knowledge hiding.

- ➢ To find out the mediating effect of workplace incivility in relationship between organizational culture and knowledge hiding.

## 1.2 Rationale of the Study

As, Pakistan is an emerging country and economic growth depends upon organizations who are working and their employees are assets for Pakistan, in this concern it is vital to share the knowledge but unfortunately hiding knowledge is rises much more in service industry, due to its organizational culture, because once culture matures it becomes a part of an organization. This present study explores that, organizational culture influences knowledge hiding or not, and in the service industry especially in software industry, employees consider knowledge hiding as an important element for their personal growth.

This study investigates with the help of two mediators workplace ostracism and workplace incivility that how much these influences the knowledge hiding behavior in the software industry as it is an urgent need to work on it to control those bases which often leads to knowledge hiding.

## 1.3 Research Gaps

The gaps which have been found through comprehensive literature review are following;

First, with respect to Anand and Hassan (2019) knowledge hiding is a topic which is novel and yet it is less studied in the field of knowledge management, our study paid attention on this factor knowledge hiding.

Second, in previous studies, organizational culture is examined with knowledge sharing, but according to Serenko and Bontis (2016) organizational culture is a facilitating condition for knowledge hiding and its particularly puzzling in knowledge management field that when employees do not share knowledge due to culture maybe they hide knowledge. The present study will bridge this gap and focus directly organizational culture on knowledge hiding.

Third, this study examines the link of organizational culture and knowledge hiding through the lens of deviant behaviors which are recommended by Ferris et al. (2017) such as workplace ostracism and workplace incivility so, our study opens the black box in this perspective among the organizational culture and knowledge hiding the relationship.

Fourth, workplace incivility impacts negatively on the intention to share knowledge of employees and it is generated from organizational culture (Simmons, 2008). Supplement literature gives an idea about that how workplace incivility effects knowledge hiding Arshad and Ismail (2018) but the value-added input of this research is that how these three variables behave together in one study either organizational culture impacts on

knowledge hiding more in the presence of workplace incivility or weakens it. Thus, fallouts of present investigation are predictable to appeal the consideration of scholars alike as it turns into a research gap.

### 1.4 Usefulness of the Study

The present study considerable as it is proposed to enrich the supplement literature by emerging a new model on the relationship among organizational culture and knowledge hiding among employees in an organization and this variable knowledge hiding is very famous nowadays because in service industry mostly employees hide their information. Furthermore, the current study is going to examine the mediating roles of workplace ostracism and workplace incivility in order to judge how much these variables effect knowledge hiding in an organization.

Mostly, in existing studies, organizational culture is inspected with the knowledge sharing, but principally mystifying that when personnel do not share a piece of knowledge just because of culture then maybe they hide knowledge recommend by (Serenko & Bontis, 2016).

## 2. Literature Review

### 2.1 Knowledge Hiding

Knowledge hiding now a days considered one of the hot topic among practitioners regarding Bartol and Srivastava (2002) hiding of information is mainly significant, as it may influence the knowledge acquisition probably and why people hide their knowledge is still under observation and very little attention has been devoted to it (Peng, 2013). Also, many different reasons behind knowledge hiding behaviors play a role maybe personal reasons are the cause such as pro-sociality or maybe laziness of an employee Connelly et al. (2012) or may be due to the cultural factors Bakry & Alfantookh (2012) and results concluded when an employee is lazy he does not want to do hard work and also does not want that others win the race that is why he hides the knowledge also including one of the factor is organizational culture (Davenport & Prusak, 1998). Sometimes, knowledge hiding plays a positive role in story and may have positive intentions, for example when one individual want to defend the feelings of others party and hide such information which hurt others (Connelly et al., 2012). This existing study will help to spread this literature as it is growing nowadays by examining that, how organizational culture or atmosphere allow knowledge hiding to happen.

Knowledge hiding becomes hotspot because it harms the performance of work directly of a knowledge seeker and detriment novelty and support which is socially strong (Evans et al., 2015). Sometimes retaliation with coworkers at the workplace can also cause knowledge hiding, and reciprocal distrust loops also trigger information hiding and at the end it affects the creativity of knowledge hider and impairs it (Rhee & Choi, 2017; Hancock et al., 2016).

### 2.2 Organizational Culture

Conforming to Lee (1999), organizational culture considered one of the precursors of knowledge hiding, which is a broad concept in which includes belief, norm, ideology, knowledge, technology, and tradition. Contemporary researchers have observed that the

culture of an organization could be the genesis of a competitive advantage as it gives birth to those ideas and culture which is beneficial for an organization (Magala, 2005). Previous literature vision the glimpse of organizational culture that it will not only worthwhile as a single variable but it will also show that how the broad concept of organizational culture and its various methods used to study and changed with the passage of time and particularly when practitioner see different environmental effects with organizational culture. Ulker and Kanten (2013) researched that different measurements of the culture of an organization generate some those types of negative effects which are the part of the organization and included as counterproductive behavior. When organizational culture is positive and respectful it impacts on employs perception positively and due to this employees feel the organizations motive to their personal motives and objectives, but when it is negative then it produces various deviant behaviors. Besides these, organizational culture depends upon managers and cannot be separated from the manager's style that how he/she lead employees to work in an organization (Aryati et al., 2018). As well as, knowledge hiding becomes also a part of organizational culture and this organizational culture produces an impact or can say that it influences the knowledge hiding, which may be clarified in a better way when it studies with the perspective of business ethics. Mostly exploration studies gives an idea about this concept, that the culture which is knowledge fostering will always highlights the significance of moral and ethical rules or codes of business which is embedded in day to day routine of organizational practices Tseng and Fan (2011), openness, justice, fairness, trust among employees are included in such ethical values which are supposed to inhibit and reduce some counterproductive work behaviors in which knowledge hiding is one of them because employees in an organization desire a corporative environment and expected to create a sense of moral obligation Rechberg and Syed (2013) and culture of organizations differ from one firm to another. In this research, which is grounded on different behaviors of an organization, organizational culture determines stately as a crucial factor of those behaviors which are considered counterproductive and because of it this evil causes like knowledge hiding innate. Kanten and Ulker (2013) assumed that numerous measurements of the organizational culture might create a different momentous in an organization, many times these dimensions might create an effect which is negative and these effects the behavior and in-return counterproductive behaviors can be seen and resulted many different acts. This implies that organizational culture is so vital that it produces positive, healthy and respectful culture as well as it produces negative, in which aggression, bullying, workplace ostracism, incivility occurs, positive environment will enhance the employee's positive thinking or perception in which employees would sense or feels the comforts and focuses on organizations objective rather than on personal objectives, while in negative employees prefer personal objectives and for the sake of that they adopt counterproductive behaviors.

Different deviant behaviors nurtures from organizational culture in (software industry) service industry Shim (2010) in order to hide the knowledge, this deviant behavior is also an antecedent of knowledge hiding (Tuna et al., 2016). Our study supplement literature that deviant behaviors may play a role among the organizational culture and knowledge hiding, that whenever the firm's culture produces deviant behaviors (on its mature stage) then this deviant behavior further leads to knowledge hiding, workplace ostracism and

workplace incivility are types of deviant behaviors which play a role as mediators in this study.

*2.3 Workplace Ostracism*

Ostracism demarcated by Ferris (2008) as, the perception of range in which an employee thinks that he/she is ignored by others in an organization, for more clear understanding Robinson and Bennett (2013) gives an example that, suppose a person greets another employee and an individual does not return your greetings at the workplace, it is not much clear if that individual is ignoring you or maybe simply failed to hear you and it is also included as counter to norms of respect. Robinson et al. (2013) defined in a broader term that ostracism at the workplace is the range to such level on which employee or group of employees omits a member who is from the other organization member and engaging in those actions which are socially not appropriate and this exclusion or shunning may vary and depends upon the motives and intensity of task, project and also on the organizational culture. Supplement working shows the importance of workplace ostracism and has set much consideration to those outcomes and impacts which are engendered from the workplace ostracism, as many researchers observed that it causes knowledge hiding and become an antecedent of it. Impact of workplace ostracism influences negatively not only the organizations but also on workers too, and these are mainly categorized into two parts:

➢ An impact which is psychological

➢ An impact which is pragmatic Robinson (2013)

But in contrast with these realistic effects, these impacts extensively investigated by the scholars and find variability of grey areas, previous studies identified that workplace ostracism hovers the four uncomplicated wants of humans which are basic and important as well:

➢ Need of belongingness

➢ Self-esteem need

➢ Meaningful existence need

➢ Control need

2.3.1 Abraham Maslow Theory (2000)

Rendering to Williams et al. (2000), a term ostracism is moving side by side to the theory of Abraham Maslow and a self-report of four basic wants of humans which are lower in level, such as workers belonging with other workers, control of employees, self-esteem of labors at the workplace, and the last one is the meaningful existence of an employee, all these are important as they are instincts and when any action of others hurt these primary or basic feelings and different behaviors of workers innate.

*2.4 Workplace Incivility*

Another mediator, workplace incivility demarcated by Andersson and Pearsons (1999) as, behavior of low concentration with some those intents which are unclear in nature in order to down the employee who is targeted, and this become included in a defilement of

workplace ethics and norms which are essential for mutual respect, rude and discourteous behaviors are included in it because it is against the moral values of an organization and relevantly exhibiting a lack of regard for others. Additionally, for more clear understanding of this broad topic is when juniors or assistants engage in those acts which are hostile and aggressive verbally and non-verbally, and in which physical hurting others are excluded (Tepper, 2000). Workplace incivility is often viewed by practitioners as an important feature or a manifestation of workplace deviance (Taylor & Pattie, 2014). As well as, Porath and Pearson (2010) stated that almost 96 to 99 % of the surveys, witnessed by the respondents that incivility mostly happens on a very small things at the workplace, moreover experiencing of uncivilized behaviors are common and found 71 percent during the past 5 years Cortina et al. (2001) is often cited in literature. Workplace incivility often leads to poor organizational fit as well as organizational conflicts rises too and it becomes a topmost line topic of workplace deviance and observed by investigators as a manifestation of it (Taylor & Pattie, 2014).

## 3. Hypothesis Development

In this research organizational culture investigates with knowledge hiding, in prior studies organizational culture studied with knowledge sharing, but grey area allows that what if circumstances of an organizational culture does not allow knowledge sharing or maybe condition is negative, so our first hypothesis is organizational culture has a significant relationship with knowledge hiding.

➢ **H₁**: Organizational Culture has a significant relationship with Knowledge Hiding

In this study as organizational culture examine with knowledge hiding, to see that either workplace ostracism works as a mediator among this relationship or not, because workplace ostracism nurtures from organizational culture when culture is already mature and allow employees to ignore others and hide knowledge, so our second hypothesis is whether workplace ostracism mediates in a relationship or not.

➢ **H₂**: Workplace Ostracism mediates the relationship between Organizational Culture and Knowledge Hiding

In this study as organizational culture examine with knowledge hiding, to see that either workplace incivility works as a mediator among this relationship or not, because workplace incivility nurtures from organizational culture when culture is already mature and allow employees to ignore others and hide knowledge, so our second hypothesis is whether workplace incivility mediates in a relationship or not.

➢ **H₃**: Workplace Incivility mediates the relationship between organizational culture and knowledge hiding

*3.1 Proposed Model*

In order to seal the previously mentioned gaps in the literature, the existing study has projected the following models to test the proposed hypothesis
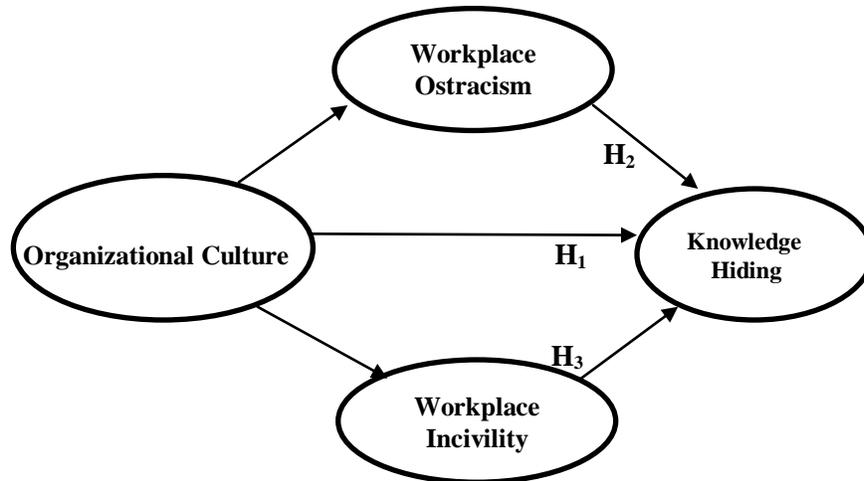
**Figure 1: Conceptual Model**

The above-mentioned framework consists of one independent variable named organizational culture one dependent variable named knowledge hiding and two mediating variables called workplace ostracism and workplace incivility.

## 4. Methodology and Measurement

In order to meet the objectives of this research, a quantitative research strategy has been developed. Research uses a cross-sectional approach collecting data from respondents at one point in time.

### 4.1 Population

With reference to population the population comprised of employees working in software industry (service sector) of Lahore, Pakistan.

### 4.2 Sample Data Collection

 For data collection, a convenient sampling strategy was followed and total of 300 questionnaires were distributed among respondents, first section was about demographic information whereas, second section were allocated to measure the instruments.

Organizational culture assessed by a previously validated 23-item instrument, while, workplace ostracism measured from the 10-item instrument, workplace incivility measured from 12-items and as well as knowledge hiding from the 12-item instrument and all the variables are measured on 5-point Likert scale for the statistical analyses, two software's were used SPSS 16.0 and AMOS.

### 4.3 Measurement Instruments

Knowledge hiding: We measured knowledge hiding by using a twelve-item scale which is developed by (Connelly et al., 2012). Four of them assess with the evasive hiding, four of them signify playing dumb and four of them represent rationalized hiding and respondents completed the measures using a 5-point Likert scale (1 = strongly disagree, 5

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= strongly agree), as subscales have Cronbach's 87 alphas of over 0.80, represents the internal consistency amid these items. Other validities such as convergent, concurrent and divergent validity tested. Cronbach's coefficient was 0.965 respectively.

Workplace ostracism: We assessed workplace ostracism with the help of ten-item scale which is established by (Ferris et al., 2008). Respondents finished the measures by using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's coefficient was 0.831.

Workplace incivility: To assess that, how employees experience the uncivil behaviors at the workplace, we used a twelve-item measure based on (Cortina et al., 2001). This included all of the incivility items (such as, that others give you an aggressive look or spokes at you). Participants again described how often they had experienced different uncivil behavior on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's coefficient was 0.81 respectively.

Organizational culture: We measured organizational culture with twenty-three-item scale developed by Jaghargh et al. (2012) two of them measure innovation and risk-taking (e.g, my company welcome the initiatives), two of them represent leadership (e.g., my company has a clear goals), while three of them represent integrity (e.g.,each part work independently), as well three represents the management support (if any problem occurs my managers help me), two shows the control (e.g., my manager trusts me), four of them shows the identity (I do my best for organization's success) reward system has three, compromise and conflicts represent and two of them measures a communication pattern respondents completed the measures using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's alpha of this study is 0.805.

## 5. Data Analysis and Findings

The demographic explanations involved in this research were: (1) gender, (2) age, (3) working experience and (4) income level are included. From the 300 respondents, 162 were male (54%), and 138 were female (46%). More than half of the participants were between the ages of 26-30 (52%), 38% of the participants were between 20-25, 5% were 31-35 and 5% were in the range of 36-40. 29 percent of the participants had been working for their organizations for less than 1 year, 54% of the participants had been working 1-3 years, and 16% among them had been employed for their enterprise for 4-7 years and approximately 1% of the participants had an experience of 8-12 years. Income group also discriminates employees on behalf of their working and seniority. It enables them to prioritize their tasks and employees on others. In this study, 35% of the participants were included in an income group of 21,000-25000, while 27% were in 16,000-20,000 and more than 25,000 means in a range of 26,000-30,000 had employees of 16%. In a range of 10,000-15,000 included 11% and also a range of 31,000 and above included 11%, from a total of 100%.

### 5.1 Measurement Model

To test the hypotheses which are purposed by us, this investigation used a method of analysis mainly hierarchical regression analysis. Moreover, hierarchical regression analysis, statistical analyses were led to examine the collected data.

**Table 1: Validity and Reliability of the Model**

|  | CR | AVE | MSV | MaxR(H) | KnowH | OS | WPI | OrgCU |
|---|---|---|---|---|---|---|---|---|
| KnowH | 0.966 | 0.702 | 0.428 | 0.968 | 0.838 |  |  |  |
| OS | 0.936 | 0.594 | 0.393 | 0.937 | 0.569 | 0.771 |  |  |
| WPI | 0.918 | 0.629 | 0.554 | 0.971 | 0.654 | 0.576 | 0.793 |  |
| OrgCU | 0.805 | 0.674 | 0.554 | 0.821 | 0.628 | 0.627 | 0.744 | 0.821 |

At the start of data analysis, assessment of measurement model was performed through the CFA, and in CFA reliability and validity is a very important element because it leads to those results which are authenticated. This validity and reliability in our study done through Statistics Tool Package, in which shows that, CR represents the reliability and it is also called Composite Reliability, composite reliability measures the reliability of overall collection of similar items which are heterogeneous in nature Farrell (2010) and it should be greater than 0.7, in this study according to table 1 knowledge hiding has a reliability with 0.966 which is high, workplace ostracism has a reliability with 0.936, workplace incivility has 0.918 and organizational culture which plays a role of independent variable, has a reliability with 0.805, this reliability test supports the model.

Average Variance Extracted (AVE) or also called a discriminant validity is a degree in which it distinguishes the latent variable from another latent variable Farrell (2010), and it should be superior than 0.5, in this research AVE of knowledge hiding is 0.702, workplace ostracism has 0.594, workplace incivility has 0.629 and organizational culture has 0.674, it represents that all variables are different from other latent variables.

Maximum Shared Variance (MSV) is the extent to which one variable can be debated or explained in another variable. Farrell (2010) and discriminant validity defines this relationship when

$$MSV < AVE$$

$$ASV < AVE$$

In which the square root of average variance should be greater than the inner construct relationships or correlations

Average share variance stated that how much the variance is captured by the other variable which is latent among a model of the structural equation.

Assessment of this model fit is used to define that, how this model overall is consistent with the composed empirical data. Table 2 demonstrates the results of CFA:

**Table 2: Evaluation of the Measurement Model**

| **Measurement Model** | $\chi^2$ | **AGFI** | *GFI* | **TLI** | **RMSEA** | **NFI** | **CFI** |
|---|---|---|---|---|---|---|---|
|  | 2.74 | .955 | . 995 | .985 | .076 | .996 | .99 |

Indices of goodness-of-fit in current research are included a Chi-square which is represented as ($\chi^2$), (RMSEA) a Root Mean Square Error of Approximation another index

is (NNFI), Non-Normed Fit Index and also the (CFI) a Comparative Fit Index. As shown in Table 9, the chi-square $\chi^2$ value of the statistic for this model fit is significant in nature, it means that the good-fit of the null hypothesis of this data can be rejected. Fit indices of the model demonstrated that all values are moderately acceptable. More explicitly, RMSEA was 0.07, NFI was 0.99 and CFI was 0.99.
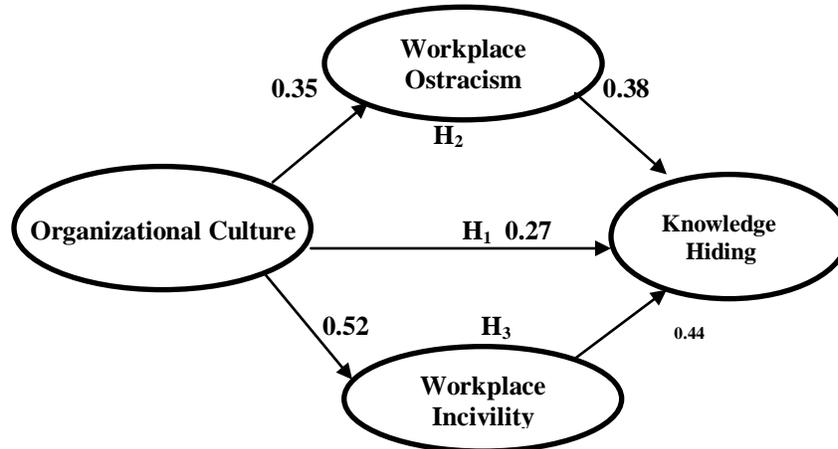


**Figure 2: Mediation Model**

(All relationships are significant at p<0.01)

Structural models were estimated. Purpose was to establish which constructs have a statistically significant effect and retain them for further analysis. By removing non-significant constructs, it is easier to achieve statistical significance when testing a model. Bootstrapping was done to obtain *t*-values for the structural relationships. Organizational culture has a significant effect with knowledge hiding ($\beta = 0.27$, $p < 0.01$). organizational culture with workplace ostracism also shows significant positive effect ($\beta = 0.35$, $p < 0.01$) and workplace ostracism to knowledge hiding have also a positive impact more the workplace ostracism more employees hide knowledge ($\beta = 0.38$, $p < 0.01$), Second mediator also plays a vital role in this study as organizational culture also impacts positive on workplace incivility ($\beta = 0.52$, $p < 0.01$) while, workplace incivility also shows that more the workplace incivility at the workplace more the knowledge hiding is ($\beta = 0.44$, $p < 0.01$) and it is significant in nature.

*Mediating role of workplace ostracism and workplace incivility:*

On the basis of AMOS output, following is the indirect effect:

**Table 3:  Standardized Indirect Effects - Two-Tailed Significance**

|       | OrgCU | WPI | OS  |
|-------|-------|-----|-----|
| WPI   | ...   | ... | ... |
| OS    | ...   | ... | ... |
| KnowH | .001  | ... | ... |

Organizational culture and knowledge hiding have a significant effect which is less than 0.05 and this value is 0.001 which is (99.9%) and mediation exists among this relationship significantly. This table displays that either mediation exists among variables or not. Table 3 shows the relationship between dependent and independent variable.

**Table 4: Standardized Direct Effects - Two-Tailed Significance**

|       | OrgCU | WPI  | OS   |
|-------|-------|------|------|
| WPI   | .001  | ...  | ...  |
| OS    | .001  | ...  | ...  |
| KnowH | .002  | .001 | .001 |

> ➢ **H₂:** Workplace Ostracism mediates the relationship between Organizational Culture and Knowledge Hiding

From the above table workplace ostracism (OS) works as an attribute of a culture and it has a significant effect with organizational culture (OrgCU) (sig = 0.001), this significance level is (0.001) and it displays that a confidence level is (0.999%) and it is greater than the confidence level of this research which is (95%), and also the relationship with knowledge hiding (KnowH) is (sig=0.001), this significant relation shows that workplace ostracism (OS) significantly affects and mediates the model. Other values WPI and OS are mediators that's why they did not affect each other. This table shows that either mediation is partial of complete. As, all values are significant it means they are partial in nature. On the basis of that our second hypothesis is accepted.

These results agrees with previous researches who emphasizes the vitality of workplace ostracism which plays a role in promoting knowledge hiding. In fact, the reality of workplace ostracism within the context of organization works as generating many evil roots in the management process and it may produce a ground for the organizational members to hide their information.

> ➢ **H₃:** Workplace Incivility mediates the relationship between Organizational Culture and Knowledge Hiding

From the above table workplace incivility (WPI) works as an attribute of culture and it has a significant effect with organizational culture (OrgCU) (sig = 0.001), this significance level is (0.001) it displays that a confidence level is (0.999%) and it is greater than the confidence level of this study which is (95%), and also the relationship with knowledge hiding (KnowH) is (sig=0.001), this significant relation shows that workplace incivility (WPI) significantly affects and mediates the model. On behalf of it, third hypothesis is accepted.

In fact, workplace incivility makes the relationship between organizational culture and knowledge hiding strong. When the culture in a software industry encourages employees to behave uncivil with others so that they do not ask for the knowledge and in-return hide knowledge.

Another main point of the study is either it is a complete mediation or a partial mediation, our model with independent variable organizational culture and dependent variable without mediators show a positive relationship with 0.64 and with mediators its value is 0.27, it means that mediators play a great role in this study and these two mediators partially mediated.

<div align="center">(without mediation)</div>

<div align="center">0.64</div>

<div align="center">OrgCU → KnowH</div>

<div align="center">(with mediation)</div>
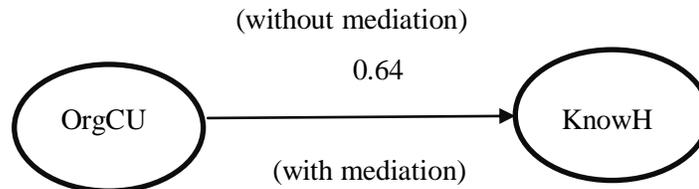
Value is 0.27 (above figure 2) it means that direct relationship of organizational culture and knowledge hiding is become lessor 0.64 to 0.27 when mediators enter.

## 5. Conclusion, Limitations and Future Directions

The present study was among the few hard works to recognize how organizational culture impacts knowledge hiding behavior of employees and to inspect the mediating behavior of workplace ostracism and workplace incivility between organizational culture and knowledge hiding of software industry employees of Pakistan. The analysis led to the conclusion that organizational culture had a significant impact on knowledge hiding and the mediators workplace ostracism and workplace incivility both have strong positive impact when they enters in a relationship between organizational culture and knowledge hiding and partially mediated in this relationship, it means in organizational culture, if more employees prefer workplace ostracism and workplace incivility at workplace more the knowledge hiding behavior seen in organizations. Like other empirical researches, this research also has some limitations and future directions. These limitations and future directions simply give platforms for future researchers

A number of service industries (software industries) are not much diverse and due to this, it limits the power of the study. It may-be happens, that with a much larger and varied sample, results would be different. The larger size of the sample could be demonstrated that this link is indeed significant, another limitations in the present study may-be lie partially and in differentiating a gender may-be it will give some other results. Male and female both genders have different psychology and in service particularly software industry in which skills of individuals are more required, these genders differently or

power of perceiving is vary from one gender to other. First, this study did not consist of any plausible moderators in an association between organizational culture and knowledge hiding, like, perceived motivational climate. As according to Cerne (2014) a motivational climate gives values to the individuals and promotes team working in which self-development of an individual employee happens, an efforts and learning of employees in one team, may be one of the most crucial factors for weakens the relationship with knowledge hiding and indorses knowledge sharing in an organization. Second, rendering to Connelly et al. (2012), knowledge hiding has three connected dimensions: in which one is evasive hiding, second is rationalized hiding, and the third one is playing dumb. Our present investigation mainly gave attention to knowledge hiding generally and did not differentiate among all the three dimensions. However, all the three factors of knowledge hiding are quite different in some sense and maybe they have diverse consequences and work with some different mechanisms. Third fruitful avenue for the upcoming research is to examine knowledge hiding on a multi-level. Such as, type of personality and gender-basis may impact dyadic associations among two employees who decide either to share knowledge or hide it from others. For more extension, it is likely to study that diversity in a team commands the presence of hiding knowledge actions within that team.

## 6. Recommendations

As according to social exchange theory, employees return the same what they receives, means when the organizational culture provides support, confidence, trust and comfort to their employees, satisfying them by giving equal reward system, employees response great in terms of putting more efforts and dedication towards organizational goals. Managers and leaders should focuses on organizational culture so that employees feel free to share their knowledge and stop hiding knowledge in service sector particularly software industry.

By the terms of social exchange theory, organizational culture implied positive influence on sharing of knowledge of employees. Therefore, when workers feel more attachment with the organization, their behavior towards colleague, work and whole organization become positive and their gestures create a positive and healthy atmosphere. It is suggested that organization should support their employees in all the possible ways to increase their knowledge sharing with the organization and ultimately enhance their job performance.

From the theoretical point of view, workplace ostracism and workplace incivility mediates the association among organizational culture and knowledge hiding and it is positively correlated. It shows that both of the mediators enhances the relationship more the employees faces workplace ostracism and workplace incivility more the employees hiding knowledge in software industry. This relationship recommending new insights for future researchers and proposing the model with evidences.

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