

Humayun Sattar*

Tasweer Hussain Syed†

Exploring Relationships of Positive and Negative Organizational Behaviors (OB) with the Productivity of Engineering Students

Abstract

This study explores the relationships between positive and negative Organizational Behaviors and Workaholism; and the relationship of these OBs with productivity and gender of engineering students in Pakistan. Most of the researchers have studied OBs among faculty or administrative staff in universities. The study of these behaviors among students is a new area. An eight-stage innovative qualitative codebook thematic analysis was used to analyze semi-structured interviews from 22 faculty members to explore the relationships of OBs with productivity and gender of engineering students. A comprehensive model of relationships between OCB, DB, WA, and the productivity of engineering students has been built which was previously missing from contemporary literature. Gender has also been found to have a relationship with various behaviors. The findings here are important for practitioners and scholars for a better understanding of the relationship of OBs with the productivity of engineering students, to enhance their productivity through the promotion of desired behaviors.

Key Words: Codebook Thematic Analysis, Engineering Students, Organizational Behaviors, Workaholism.

Introduction

Organizational Behaviors (OB) have been an area of great interest for the researchers for a long time ([Andre, 2008](#)). Many positive and negative organizational behaviors like organizational citizenship behaviors (OCB), destructive deviant behaviors (DDB), constructive deviant behaviors (CDB) and workaholism (WA) ([Galperin & Burke, 2006a](#)) have been explored to have positive and negative effects on the performance of organizations ([Podsakoff, MacKenzie, Paine, & Bachrach, 2000](#)) as a whole or individuals' performance, working in those organizations ([Berry et al., 2007](#)). Most of the research on OCB, DDB, CDB, and WA deals with either finding or measuring their antecedents or their outcomes and affects. Researchers in the field of organizational behaviors (OBs) have recommended research on the inter-relationship of these behaviors, as this area has not been well researched ([Dalal, Lam, Weiss, Welch, & Hulin, 2009](#)) and (ur Rehman et al., n.d.). The present study is focused on the relationships between OCB-DDB ([Dunlop & Lee, 2004](#)), OCB-CDB ([Dalal, 2005](#)), OCB-WA, WA-DDB, WA-CDB ([Galperin & Burke, 2006a](#)) as well as their effects on the productivity. The wholesome framework of studying the relationship of all these behaviors, which exist independently and distinctly among people, was missing. These behaviors in universities' context were previously focused on the faculty members and administrative staff. Students were treated either as the customers or the product of engineering universities. Recently few researchers studied OCB among students ([Yam et al., 2014](#)), however, mostly, such studies do not encompass capturing these OBs amongst students in real-life context; rather, students' behaviors are studied in controlled experimental environments ([Khalid et al., 2010](#)). A review of the literature also reveals that the majority of the studies on organizational behaviors are based on quantitative data, and qualitative studies are few. "The advantages of qualitative methods include the use of the focal unit's terms to describe itself, the intensive and in-depth information that can be

* Ph.D. Scholar, Department of Engineering Management, National University of Sciences and Technology (NUST), Islamabad, Pakistan. Email: humayun.sattar@ceme.nust.edu.pk

† Assistant Professor, Department of Engineering Management, National University of Sciences and Technology (NUST), Islamabad, Pakistan.

obtained about a unit, and the amenability of the method for exploratory research on issues and processes about which little information exists” (Cooke & Rousseau, 1988). This paper is an attempt to explore relationships of various OBs and productivity through qualitative research.

We contest that the engineering students, especially the undergraduate (UG) students, spend a long duration of 4 to 5 years in engineering universities, they act as co-workers and exhibit organizational behaviors (LeBlanc, 2014) like other members of the universities (faculty and administrative staff), and researchers now find it an interesting area of research to explore (Allison et al., 2001); whether these behaviors are exhibited by the engineering students similar to university employees. The research to explore the relationships of these positive and negative behaviors among engineering students, along with their effects on students' productivity will help increase the students' productivity.

To fulfill the purpose of this research, we have used the codebook thematic analysis (Braun et al., 2019). In our research, an inductive-deductive qualitative approach was used to develop a new theory as well as to explore relationships of the behaviors among students and perceived effects on their productivity.

Theoretical Framework

The Presenting Problem: Relationship of OCB, DDB, CDB, Workaholism, and Productivity among Engineering Students.

Students of engineering universities in developing countries like Pakistan can play a pivotal role in the development of their nations (Jowi et al., 2013) and (Habib et al., 2018). While the “antecedents”, “outcomes” and “relationships” of various positive and negative organizational behaviors and their effects on the individual as well as organizational productivity are an area of great interest for researchers for past many decades (Dunlop & Lee, 2004), the study of the prevalence of OCB, DDB, CDB and WA among engineering students and relationships of these behaviors and their effects on students' productivity, especially in developing countries like Pakistan, has not been in focus. Research on these behaviors and their effects on productivity can enhance understanding of planners, practitioners, and researchers on “how these behaviors can help to increase engineering students' productivity?” which will further lead to the rapid industrial growth of developing nations.

Relationships of Organizational Citizenship Behaviors (OCB), Deviant Behaviors (DDB and CDB), Workaholism (WA), and Productivity.

Organizational citizenship behavior (OCB) refers to employee's extra-role behavior, that promotes organizational effectiveness, and that is not explicitly recognized by an organization's reward system (Organ, 1990). Workplace deviance and misbehavior has also become an important concern for organizations (Bennett & Robinson, 2003). More than four decades of research on OCB has mostly considered it as a positive behavior which adds to the well-being of the organization (Skarlicki & Latham, 1995), but from last two decades, researchers have focused on finding some dark sides of this behavior (Koopman et al., 2016) due to various phenomena such as “too much of a good thing”, “moral licensing” (Klotz & Bolino, 2013; Bolino & Klotz, 2015), “maintaining moral equilibrium”, “compulsory behaviors”, “impression management”, “work-family conflicts and workaholic behaviors”, thus having some negative implications on individuals and organizations. The relationship of OCB with performance also has two views; positive effects of OCB on performance (Ozer, 2011); and negative effects (28)(28)(28).

Galperin and Burke (2006a) defined deviance as “behaviors that cause harm to the organization”. Whereas many other types of research define deviance as behaviors of violating norms (Erkutlu & Chafra, 2018; Rock, 2014) which leads to both positive and negative directions” (Cameron, 2003; Galperin, 2012). Galperin & Burke (2006b) found through exploratory research that employees' deviance could be functional and constructive as well. They also found out that WA is significantly

related to both CDB as well as DDB. Since most of the writings are anecdotal, researchers have called for more scientific research attention on workaholism (McMillan et al., 2002). This encouraged us to assume that engineering students' productivity can also be linked with their positive behaviors. Researchers have found the relationship of problems like stress, depression, and sleep disorders with students' productivity ([Hysenbegasi et al., 2005](#); [Gaultney, 2010](#)), but the prevalence of organizational behaviors among engineering students and the relationship of these behaviors with their productivity needs to be further explored.

Method

Overall Principles of Design

We developed the following research questions from the theoretical framework: (1) in the perception of the faculty members (supervisors), how do engineering students exhibit positive and negative organizational behaviors in engineering universities in a developing country? (2) What is the relationship between OCB, DDB, CDB, and workaholism (WA) among engineering students? (3) How do faculty members (supervisors) perceive the role of students' gender in demonstrating positive and negative organizational behaviors (OCB, CDB, DDB, WA) amongst engineering students? (4) In the perception of engineering faculty, what is the relationship between these positive and negative behaviors and workaholism with the productivity of engineering students?

A rigorous method of sample selection, followed by the standardized open-ended interviews, transcription, coding, and codebook thematic analysis was used to formulate propositions and refine hypotheses for further quantitative studies (not reported in this article) for doctoral research work.

Selection of Codebook Thematic Analysis (TA) Qualitative Method

([Braun et al., 2019](#)) explain *codebook thematic analysis*(TA) as a school of TA between "coding reliability TA" and "reflexive TA", sharing the structured approach of coding from "coding reliability TA" (often without the use of coding reliability measures like Kohen's Kappa) with the broadly qualitative underlying philosophy of "reflexive TA". An inductive approach was required to get an in-depth understanding of relationships of behaviors of engineering students, and then developing propositions so that hypotheses may be tested. We, thus, decided to use an eight (8) stage codebook TA approach. We were encouraged to use this approach by researchers like [Ferlie, Fitzgerald, Wood, & Hawkins \(2005\)](#) and [Langley \(1999\)](#), who in interpretive qualitative studies, where the partial theory was already available and hypothesis-testing was to be combined with the inductive exploratory research, to find new insights or to develop new theories, used looser designs by balancing pure induction against early structure to avoid the peril of "drowning in data". The innovative eight-stage process was: -

- Stage-1 Developing the codebook
- Stage-2 Testing the reliability of the codebook
- Stage-3 Transcription and initial coding from interviews' data
- Stage-4 Validating initial coding through follow-up questions/interviews
- Stage-5 Validating codes/themes by different perspectives to reduce researcher's bias
- Stage-6 Applying codebook to map/identify themes in data
- Stage-7 Corroborating and legitimating coded themes to identify second-order themes
- Stage-8 Producing report

Sampling for Interviews

We used a qualitative approach; to get rich data of perceptions of engineering faculty about the relationship of various positive and negative behaviors demonstrated by their students, qualitative standardized open-ended interviews ([Turner III, 2010](#)) of 22 faculty members were conducted by the first author. The sample size is very important to ensure the richness of data and to get an in-depth

understanding of phenomena under study. [Morrow \(2005\)](#) suggests a magic number of 12 and also recommends a number between “20-30” for qualitative studies. She considers that a sampling procedure and a variety of evidence are more important for maintaining the quality of data. As the understanding of behaviors of students was under consideration in this research, hence 22 faculty members with teaching experience of five years or above were selected purposively; their experiences ranged from 5 to 25 years in teaching the engineering students. Similarly, variety in their disciplines was also considered; several faculty members from various engineering disciplines was: Electrical Engineering (3), Mechanical Engineering (3), Mechatronics Engineering (3), Computer Sciences (3), Software Engineering (3), Telecommunication Engineering (4) and Engineering Management (3). These 22 faculty members were from 3 different universities. All participants agreed for interviews willingly. 12 of the faculty members were male and 10 were female. The age bracket was 33 years to 57 years.

Stages Demonstrating the Research Process of Codebook Thematic Analysis (TA)
Stage-1 Developing the Codebook

The apriori codebook was prepared to facilitate collating segments of related text to find themes, and providing a trail of evidence for the credibility of the study. Codes were developed from the literature review; essential factors of the constructs under study and their relationships found by eminent scholars in the field were included in the codebook, so that, during interviews and interpretation, relevant data is mapped and collated to find themes in data. The codebook is given at Table-1: -

Table 1. A sample from Codebook Developed from the Theoretical Framework on Relationships of OCB, DDB, CDB, WA and Productivity of Engineering Students

Code No.	Label	Description of how to know when the code/theme occurs
1	Prevalence of organizational behaviors (OCB, DDB, CDB, and WA) among engineering students. <u>OCB</u> Altruism, Sportsmanship, Consciousness, Courtesy, and Civic Virtues Podsakoff et al. (1990). <u>DDB</u> Aggression, Unfair Treatment, Breaking Laws/Rules, Sabotage, Dishonesty, Theft, Misbehavior (Warren, 2003) <u>CDB</u> Tempered Radicalism, Whistle Blowing, Principled Organizational Dissent, Exercising Voice, Pro-social Behaviors, OCB, Functional/Creative Disobedience (Warren, 2003). <u>WA</u> Work Involvement (WI), Work Enjoyment (WE), and Feeling	The observations/experiences of faculty members about their students’ behaviors which match factors of OCB, DDB, CDB, or WA e.g. helping and guiding others; and/or showing courtesy, sportsmanship, and civic virtues in case of positive behaviors (OCB). Similarly, faculty members’ observations/experiences about their students violating interpersonal/organizational norms/rules/instructions, harming others/organizations (DDB), or violating rules for the betterment of others/organization or bringing innovations (CDB). Faculty members narrating the extra-ordinary/abnormal involvement of students in their work/study/projects (WA).

	Driven to Work (Spence & Robbins, 1992). Work Engagement, Obsessive Passion (OP), and Harmonious Passion (HP) (Birkeland & Buch, 2015).	
2	Relationship of OCB and DDB	The observations/experiences of faculty members about the relationship of their students' behaviors e.g. a student exhibiting OCB also found involved in DDB (Cheating or Stealing etcetera).
3	Relationship of OCB and CDB	
4	Relationship between OCB and WA	
5	Relationship of CDB and DDB	
6	Relationship between CDB and WA	
7	Relationship between DDB and WA	[Description omitted due to space limits]
8	Relationship of positive (OCB) and negative behaviors (CDB, DDB), and WA with productivity (CGPA) of students.	

Stage-2 Testing the Reliability of the Codes

The codebook was thoroughly checked and discussed with the co-author and other team members. To further validate, a senior expert (a professor of organizational behaviors) from another university was requested to further review the codebook. A detailed discussion resulted in adding and deleting many codes. The expert suggested deleting OCB from Warren's list of CDB (Code 1.3) due to two reasons. First, it is already studied as a separate construct in this study; and second, basing on Galperin's (2012) argument that OCB is passive behaviors, whereas CDB is demonstrated by pro-active individuals and risk-takers. In code 1.2 (DDB), dishonesty was replaced by "academic dishonesty" as this study's focused population was students. In Code 1.4 (WA), the constructs "Work Engagement", "Obsessive Passion (OP)" and "Harmonious Passion (HP)" (Birkeland & Buch, 2015), were dropped as these were considered making study too complicated, hence, were recommended for future research. Besides, a 9-code i.e. "Relationship of Gender with OB (OCB, DDB, CDB, WA) and productivity" was added and was also included in the theoretical framework section.

Stage-3 Transcription and Initial Coding from Interviews' Data

Transcripts were prepared very carefully and initial coding was carried out by the researchers. English is the official language being used at all universities; hence, translation was not required, as all interviews were conducted in the English language. As a measure to maintain rigor, the write-up must provide sufficient evidence of themes within the data- i.e. enough data extracts to demonstrate the prevalence of the themes (Braun & Clarke, 2006). Due to space and word limits for this article, the extracts with varied perceptions or opinions are presented in Table-2. 22 Interviewees have been labeled from "A" to "V" and interviewee's label has been indicated in parenthesis (), along with "status" [Prof for the professor, AsP for associate professor, AP for assistant professor, and Lec for lecturer], and teaching experience in years. Example: (AP-C, 15) means assistant professor C with 15 years of teaching experience.

Table 2. Initial Codes from Interviews' Data

Selected data from interviews	<p>'UG engineering students are with us for 4 years. Though they can be termed as customers as well, I think, they have such close association with the university and with the college, That they behave just like employees as far as demonstrating various behaviors like helping us in projects, and sometimes even in our official obligations, for example, making scientific reports etcetera.' (Prof-B,24)</p>	<p>'Definitely, those with more positive behaviors show less negative behaviorslike cheating or harming others etcetera; however, this can be MISLEADING in some cases. I have seen very good students involved in cheating when they get a chance.' (AP-C,15)</p>	<p>"There are some students who would violate the rules to help others, or to do something innovative,or to complete some projects in time, but in my opinion, such students are very less in number,but, and do they demonstrate positive or negative behaviors? In my observation, they can go both ways. I have seen such students with good sportsmanship and also seen them behaving negatively. (AP-O,12).</p>	<p>'Students who are jitter in studies, you may call them workaholics, but previously we used to call them book worms. I mean, ---, you can call them "STUDIES-AHOLICS"; I think they are normally good; they normally remain positive and are assets for the university. They will always be there for the university, in science exhibitions, workshops etcetera and always bring good name to university. I don't mean in any way, that those not good in studies don't do these activities, but these so-called STUDYAHOLICS are the best. It is my opinion and, ... you can differ from it.' (AsP-G,15)</p>	<p>'Yes, Those who show positive behaviors generally get good grades (Prof-A,25). 'The students involved in innovative projects etcetera are generally good in their grades as well,.... ... though they are not STUDYAHOLICS' (AP_K,15).</p>	<p>'Girls are normally more obedient, but due to our cultural values, they cannot be much outgoing in outdoor activities. (Lec-E,5)</p>
Initial Data-Driven Codes	<p>Prevalence of positive and negative behaviors among</p>	<p>Students with Positive behaviors (OCB) less deviant.</p>	<p>Students who exhibit CDB exhibit OCB occasionally .</p>	<p>Workaholics exhibit more OCB. Non-workaholics also exhibit OCB.</p>	<p>Students with positive behaviors get good grades.</p>	<p>Girls are less deviant. Girls are less helping</p>

	engineering students		Students who exhibit CDB exhibit DDB occasionally			(exhibit less OCB)
Initial Themes Emerging from Data	Students exhibit positive (OCB) and deviant (DDB, CDB) behaviors.	(weak) The negative relationship between OCB and DDB.	(Weak) relationship between CDB and OCB. (weak) relationship of CDB and DDB	A weak relationship between OCB and WA.	The positive relationship between OCB and CDB with Productivity (better grades).	Students from both genders exhibit behaviors differently.

Stage-4 Validating initial coding through follow-up questions/interviews

Participants’ checks and follow-up interviews are the recommended process for ensuring that we capture the true perceptions of the interviewees. Examples from a follow-up interview from an assistant professor (AP-C, 15) are presented in Table-3. This follow-up interview not only confirmed the initial codes/theme of “OCB is positively related to the productivity of engineering students” but also helped in finding some new codes/themes which are underlined: -

Table 3. Validating codes Through Follow-Up Questions

Initial codes	Follow-up questions/discussion	Validated codes/newly emerging codes
The positive relationship of OCB with productivity (better grades)	<p>Q. Do you think, students with positive behaviors, especially those who help teachers voluntarily in arranging various events etcetera, get any undue advantage in their grades?</p> <p>A. Yes, I must admit that they get good marks in-session tests ((i.e. quizzes etcetera)), where teachers have some marks on their discretion. (AP-C,15).</p> <p>Q. Is it fair with them and others?</p> <p>A. I feel, yes, because, they are sparing time, which others are spending on their studies, so they should be compensated.</p> <p>Q. Do other students feel offended or being treated unjustly by the teachers?</p> <p>A. Maybe,..... but this is the reward for their ((i.e. students exhibiting altruism(OCB))) extra efforts for the university.</p>	<p>OCB is positively related to the productivity of engineering students.</p> <p><u>Favoritism.</u></p> <p><u>OCB leading to deviant behaviors (Unfair Treatment, Organizational Justice, Distributive Justice, Favoritism, Nepotism) among supervisors and colleagues.</u></p> <p><u>OCB leading to “Anger” and “Dissatisfaction” among colleagues (fellow students) of those exhibiting OCB (altruism).</u></p>

Stage-5 Validating Codes/Themes by Different Perspectives to reduce Researcher’s Bias

The initial data coding and thematic analysis were carried out by one person, hence compromising the principles of rigor and quality. The co-author, 3 doctoral students (working on diverse research areas) and 1 Ph.D. qualified faculty members were requested to provide multiple perspectives. The codes and themes were then discussed as a team and were finalized after detailed discussion.

Stage-6 Applying Codebook to Map/Identify themes in Data

All the codes and templates were then mapped with the a-priori codebook to draw propositions and find relationships of various behaviors with the productivity of students. Examples are at Table – 4:-

Table 4. Mapping of codes Derived from data with A-Priori Codebook

Theory driven codes	Data-driven codes	Identified themes in data by connecting the codes
Code # 8 Relationship of positive (OCB) and negative behaviors (CDB, DDB), and WA with productivity (CGPA) of students.	<p>Students with positive behaviors are good in studies as well.</p> <p>Students with positive behaviors generally get good grades. (AsP-J,20;Prof-V,24; & 7 faculty members).</p> <p>Students, not exhibiting OCB, do not get additional marks, which students, exhibiting OCB, get. (AP-C, 15; Lec-R,7;AsP-J,20).</p>	<p>OCB is positively related to the productivity of engineering students.</p>
Code # 9 Relationship of gender with OB (OCB, DDB, CDB, WA) and productivity	<p>Female students can spare less time for OCB (altruism, voluntary participation in university events). (Prof-A,25;Prof-H,22;AP-P,11 & 13 other faculty members).</p> <p>Female students engage less in DDB. (Prof-A,25; Prof-H,22; AP-P,11 & 8 other faculty members).</p> <p>Social and cultural issues do not allow female students to mix up unnecessarily with male students. (Prof-A,25; Prof-H,22; AP-P,11 & 8 other faculty members).</p> <p>Female students are more workaholic in studies (study-a-holic). However, their WA does not have any effect on their grades. (Prof-B,24; AP-N,11; AP-O,12 & 12 other faculty members).</p> <p>Productivity is not only CGPA. (Prof-I,23; AP-T,11 & 4 Other faculty members).</p> <p>The productivity of engineering students includes their projects/research work/papers. (Prof-I,23; AsP-U,16 & 4 other faculty members).</p> <p>The productivity of engineering students encompasses their participation in science competitions, seminars, conferences, and workshops. (Prof-I,23; AsP-U,16 & 4 other faculty members).</p>	<p>OCB and DDB are related to gender of engineering students in developing countries.</p> <p>OCB in engineering students is related to the gender of students.</p> <p>CGPA is not a valid instrument for the measurement of productivity of engineering students. For measurement of productivity of engineering students, a measure encompassing CGPA, projects, research work etcetera is required.</p>

Stage-7 Corroborating and Legitimizing coded Themes to Identify second-order Themes

An iterative corroboration process was used to ensure that no unconscious “seeing” of data by researchers occur. To do this, a to and fro analysis of initial codes/themes, transcripts, and the codebook was carried out so that overarching themes are clustered to reach second level themes. The iterative process is essential to capture the perceived relationship of behaviors and productivity, to form a comprehensive framework of relations between studied behaviors, and to phrase the propositions for further quantitative studies. Examples are given at Table-5 and a summary of propositions is narrated in the discussion section:-

Table 5. Second-order themes

First-order themes	Clustered themes	Second-order themes/propositions
<p>OCB and DDB are related to gender of engineering students in developing countries.</p> <p>OCB in engineering students is related to the gender of students.</p> <p>Students who help others and show courtesy in their day to day life normally exhibit positive behaviors.</p> <p>Students who exhibit OCB in their day to day life do not exhibit negative/destructive behaviors.</p> <p>Students, exhibiting OCB or otherwise, can engage in constructive deviant behaviors [like innovative projects].</p> <p>OCB is positively related to the productivity of Engineering Students</p> <p>Female students are normally reluctant to spare time voluntarily for after-classes activities; hence they engage less in OCB (helping others, voluntarily participating in university functions etcetera).</p> <p>Female students are normally more studyaholics.</p> <p>Students engaging in OCB get good grades, as they become favorites of their teachers.</p> <p>Studyaholic students avoid cheating.</p> <p>Studyaholic students are more grade-conscious.</p> <p>The students who violate university rules to do something good for the betterment of others/organization/society are normally mediocre in their studies.</p>	<p>OCB is positively related to DDB.</p> <p>OCB has no relation to CDB.</p> <p>Due to social and cultural values, female students are less likely to exhibit OCB (helping others), as this OCB (helping) consumes additional time.</p> <p>OCB is positively related to the productivity of engineering students.</p> <p>WA is not significantly related to productivity; however, this relationship is moderated by OCB and gender.</p> <p>CDB is not related to productivity.</p>	<p>OCB is negatively related to DDB among engineering students i.e. Engineering students exhibiting OCB are likely to engage less in DDB.</p> <p>There is no significant relation between OCB and CDB among engineering students.</p> <p>OCB in engineering students is related to the gender of students.</p> <p>WA has a weak correlation with productivity. This relationship is moderated by students’ gender and OCB.</p>

Stage-8 Producing Report

In writing the report, a continuous to and fro interpretive and reflexive approach was followed as the overarching principle of quality and rigor (Braun & Clarke, 2006; Tobin & Begley, 2004).

Discussion and Development of Propositions

Relationship of OCB, CDB, DDB, WA, and Productivity of Engineering Students

There is a consensus amongst the faculty members, as interpreted from the transcripts and follow-ups (examples statements at Tables 2, 3, 4, and 5), that engineering students do demonstrate OCB, CDB, DDB, and WA in universities. And these behaviors are related to students' productivity as well. This finding is in line with the previous research in the area of organizational behaviors (OB) (Allison et al., 2001; Khalid et al., 2010; Skarlicki & Latham, 1995), where researchers have found a positive relationship of OCB and WA with individuals' performance, and negative relationship between DDB and performance (Steffgen, 2009).

The propositions' developed are: "OCB among engineering students is positively related to CDB, WA, and Productivity; and negatively related to DDB". Our work here contests the findings of (Lanzo et al., 2016) to some extent. "There is no significant relation between DDB and CDB; and between DDB and WA; however, there is a negative relation between DDB and productivity". "There is no relationship between CDB and WA, whereas, CDB has a mild positive relationship with the productivity of engineering students". "WA has a positive relation with productivity (CGPA), but this relation is moderated by OCB and gender of students". Here our work contests the findings of Peiperl & Jones (2001). "Gender has been found to have a relationship with various behaviors as Female students demonstrate less OCB, less CDB and less DDB, however, they exhibit more WA; the WA in female students has a positive relation with productivity (CGPA), but this relationship is moderated by their OCB". These propositions on gender's role in exhibiting OBs partially contrasts the previous work of Ng, Lam, & Feldman (2016), in the context of various cultures, however, it is in line with their research in the context of developing countries like Pakistan (Nawaz et al., n.d.).

Additive Theoretical Contribution/Recommendations for Future Research

The rigorous iterative analysis helped us find not only the themes at the semantic level which helped us to find the relationship of various behaviors and productivity of engineering students but also helped us to find innovative themes at latent levels; the need for an instrument to measure the construct "studyaholism"; which opens new avenues for researchers to find its dimensions and to design separate instrument for measuring it among engineering students. Second, the measure of the productivity of students, as perceived by some faculty members, differs from the existing concept of CGPA only. And there is a need to device a reliable and valid instrument for "students' productivity measurement".

An interesting finding is OCB among students leading to leader-member exchange (LMX) phenomenon, between teachers and students; which ultimately leads to deviant behaviors; "nepotism, favoritism, and distributive justice" amongst teachers and "perceived procedural and organizational justice" among fellow students (colleagues), in developing countries' cultural context. This is in line with previous research of Pillai, Scandura, & Williams (1999) and Farrell & Finkelstein (2011). It is worth noting that only 3 out of 22 respondents expressed this teacher-student LMX relation, however, its negative effects were glaring and hence noted as an important theme, as suggested by Braun & Clarke (2006) to capture themes basing on importance rather than on frequency in data.

Limitations

This study was carried out in a time-constrained environment. The initial data coding and thematic analysis were carried out by one person, hence compromising the principles of rigor and quality. The co-author thus involved 3 doctoral students (working on diverse research areas) and 1 Ph.D. qualified faculty member to provide multiple perspectives. Time availability with the participants was another constraint due to which representation or checking back with participants, as suggested by many qualitative research experts (Morrow, 2005), was possible for only 15 participants out of 22 interviewees.

Conclusion

The students of social sciences, sometimes, consider qualitative methods more difficult and time-consuming in research, and under the pressure of submitting dissertations in time-constrained environments tend to incline more towards quantitative methods. This tendency affects the creation of new knowledge. The issues of rigor and quality in qualitative studies also usually haunt the researchers. Our study is an effort to present a systematic approach to codebook thematic analysis. It is concluded from the study that in-depth analysis of OBs can help universities and teachers to enhance the productivity of students. The paper can help a holistic understanding of the organizational behaviors of engineering students in developing countries, to bring improvements in the overall development of the nations. Our findings have provided first-hand knowledge, of effects of behaviors on the productivity of engineering students to the planners, practitioners, and faculty members at engineering universities; and have also provided a base to scholars for exploring this neglected area of research.

References

- Allison, B. J., Voss, R. S., & Dryer, S. (2001). Student classroom and career success: The role of organizational citizenship behavior. *Journal of Education for Business, 76*(5), 282–288.
- Andre, R. (2008). *Organizational Behavior: An Introduction to Your Life in Organizations*. Pearson Education.
- Bennett, R. J., & Robinson, S. L. (2003). The past, present, and future of workplace deviance research. In *Organizational behavior: The state of the science* (2nd ed, pp. 247–281). Lawrence Erlbaum Associates Publishers.
- Bergeron, D. M. (2007). The potential paradox of organizational citizenship behavior: Good citizens at what cost? *Academy of Management Review, 32*(4), 1078–1095.
- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology, 92*(2), 410.
- Birkeland, I. K., & Buch, R. (2015). The dualistic model of passion for work: Discriminate and predictive validity with work engagement and workaholism. *Motivation and Emotion, 39*(3), 392–408.
- Bolino, M. C., & Klotz, A. C. (2015). The paradox of the unethical organizational citizen: The link between organizational citizenship behavior and unethical behavior at work. *Current Opinion in Psychology, 6*, 45–49.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.
- Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 843–860). Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_103
- Cameron, K. (2003). Organizational Virtuousness and Performance. In *Positive organizational scholarship: Foundations of a new discipline* (p. 51). Berrett-Koehler Publishers.
- Cooke, R. A., & Rousseau, D. M. (1988). Behavioral norms and expectations: A quantitative approach to the assessment of organizational culture. *Group & Organization Studies, 13*(3), 245–273.
- Dalal, R. S, Lam, H., Weiss, H. M., Welch, E. R., & Hulin, C. L. (2009). A within-person approach to work behavior and performance: Concurrent and lagged citizenship-counterproductivity associations, and dynamic relationships with affect and overall job performance. *Academy of Management Journal, 52*(5), 1051–1066.
- Dalal, Reeshad S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology, 90*(6), 1241.
- Dunlop, P. D., & Lee, K. (2004). Workplace deviance, organizational citizenship behavior, and business unit performance: The bad apples do spoil the whole barrel. *Journal of Organizational Behavior, 25*(1), 67–80. <https://doi.org/10.1002/job.243>
- Erkutlu, H., & Chafra, J. (2018). Despotic leadership and organizational deviance: The mediating role of organizational identification and the moderating role of value congruence. *Journal of Strategy and Management, 11*(2), 150–165.
- Farrell, S. K., & Finkelstein, L. M. (2011). The Impact of Motive Attributions on Coworker Justice Perceptions of Rewarded Organizational Citizenship Behavior. *Journal of Business and Psychology, 26*(1), 57–69.
- Ferlie, E., Fitzgerald, L., Wood, M., & Hawkins, C. (2005). The nonspread of innovations: The mediating role of professionals. *Academy of Management Journal, 48*(1), 117–134. <https://doi.org/10.5465/amj.2005.15993150>
- Galperin, B. L. (2012). Exploring the nomological network of workplace deviance: Developing and validating a measure of constructive deviance. *Journal of Applied Social Psychology, 42*(12), 2988–3025.

- Galperin, B. L., & Burke, R. J. (2006a). Uncovering the relationship between workaholism and workplace destructive and constructive deviance: An exploratory study. *The International Journal of Human Resource Management*, *17*(2), 331–347.
- Galperin, B. L., & Burke, R. J. (2006b). Uncovering the relationship between workaholism and workplace destructive and constructive deviance: An exploratory study. *The International Journal of Human Resource Management*, *17*(2), 331–347.
- Gaultney, J. F. (2010). The prevalence of sleep disorders in college students: Impact on academic performance. *Journal of American College Health*, *59*(2), 91–97.
- Habib, A., Dad, K., & Idris, M. (2018). Interface of Education and Religion: The Inclusiveness of Academic Discourse in Pakistan. *Global Language Review*, *3*(1), 39–57. <https://ideas.repec.org/a/qlr/journal/v3y2018i1p39-57.html>
- Hyisenbegasi, A., Hass, S. L., & Rowland, C. R. (2005). The impact of depression on the academic productivity of university students. *The Journal of Mental Health Policy and Economics*, *8*(3), 145–151.
- Jowi, J. O., Obamba, M., Sehoole, C., Alabi, G., Oanda, O., & Barifajjo, M. (2013). *Governance of higher education, research and innovation in Ghana, Kenya and Uganda* (p. 133). Organisation for Economic Co-operation and Development (OECD). <https://www.oecd.org/sti/Governance%20of%20higher%20education%20research%20and%20innovation%20in%20Ghana%20Kenya%20and%20Uganda.pdf>
- Khalid, S. A., Jusoff, H. K., Othman, M., Ismail, M., & Rahman, N. A. (2010). Organizational citizenship behavior as a predictor of student academic achievement. *International Journal of Economics and Finance*, *2*(1), 65–71.
- Klotz, A. C., & Bolino, M. C. (2013). Citizenship and counterproductive work behavior: A moral licensing view. *Academy of Management Review*, *38*(2), 292–306.
- Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal*, *59*(2), 414–435.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, *24*(4), 691–710.
- Lanzo, L., Aziz, S., & Wuensch, K. (2016). Workaholism and incivility: Stress and psychological capital's role. *International Journal of Workplace Health Management*, *9*(2), 165–183. <https://doi.org/10.1108/IJWHM-08-2015-0051>
- LeBlanc, C. J. (2014). Characteristics Shaping College Student Organizational Citizenship Behavior. *American Journal of Business Education*, *7*(2), 99–108.
- McMillan, L. H. W., Brady, E. C., O'Driscoll, M. P., & Marsh, N. V. (2002). A multifaceted validation study of Spence and Robbins' (1992) Workaholism Battery. *Journal of Occupational and Organizational Psychology*, *75*(3), 357–368. <https://doi.org/10.1348/096317902320369758>
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, *52*(2), 250–260. <https://doi.org/10.1037/0022-0167.52.2.250>
- Nawaz, F., Hussain, S., & Imad, M. (n.d.). *Classroom Assessment, Literacy and Practices of Teacher Educators in Pakistan*.
- Organ, D. W. (1990). The motivational basis of organizational citizenship behavior. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews*. Jai Press.
- Ozer, M. (2011). A moderated mediation model of the relationship between organizational citizenship behaviors and job performance. *Journal of Applied Psychology*, *96*(6), 1328–1336. <https://doi.org/10.1037/a0023644>
- Peiperl, M., & Jones, B. (2001). Workaholics and Overworkers: Productivity or Pathology? *Group & Organization Management*, *26*(3), 369–393. <https://doi.org/10.1177/1059601101263007>

- Pillai, R., Scandura, T. A., & Williams, E. A. (1999). Leadership and Organizational Justice: Similarities and Differences across Cultures. *Journal of International Business Studies*, 30(4), 763–779. <https://doi.org/10.1057/palgrave.jibs.8490838>
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107–142.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513–563.
- Rock, P. (2014). *Deviant Behaviour (Routledge Revivals)*. Routledge. <https://doi.org/10.4324/9781315885827>
- Skarlicki, D. P., & Latham, G. P. (1995). Organizational citizenship behaviour and performance in a university setting. *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de l'Administration*, 12(3), 175–181.
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, Measurement, and Preliminary Results. *Journal of Personality Assessment*, 58(1), 160–178. https://doi.org/10.1207/s15327752jpa5801_15
- Steffgen, G. (2009). Deviant behaviour and violence in Luxembourg schools. *International Journal on Violence and Schools= Journal International Ecole et Violence*, 5, 54–70.
- Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48(4), 388–396. <https://doi.org/10.1111/j.1365-2648.2004.03207.x>
- Turner III, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *The Qualitative Report*, 15(3), 754–760.
- ur Rehman, Z., Javed, A., & Rehman, K. (n.d.). *Extracting the Mediation Model of Perceived Organizational Support in the Relationship between HRM Practices and Organizational Commitment of Bankers in Khyber Pakhtunkhwa (Pakistan): A Review Paper*.
- Warren, D. E. (2003). Constructive and Destructive Deviance in Organizations. *The Academy of Management Review*, 28(4), 622–632.
- Yam, K. C., Klotz, A., He, W., & Reynolds, S. J. (2014). Turning good soldiers into bad apples: Examining when and why citizenship behavior leads to deviance. *Academy of Management Proceedings*, 2014, 10439. <https://doi.org/10.5465/AMBPP.2014.26>