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Contents

Beyond GARCH: Intraday Insights Into the Exchange Rate and Stock Price Volatility Dynamics in Borsa Istanbul Sectors

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This study investigated the impact of exchange rate volatility on sectoral stock volatility by employing the intraday volatility measure directly calculated from the original data, using daily data from 27 Borsa Istanbul sectors between April 29, 2003, and April 25, 2023. In the literature, GARCH models are commonly used to study the volatility spillovers between exchange rates and stock prices, typically using aggregate data. However, the GARCH family models provide inefficient and biased estimates if they are misspecified. Moreover, using aggregate-level data may lead to biased and misleading conclusions. The research used intraday volatility measures to overcome the shortcomings of GARCH models. The ordinary least squares (OLS), GARCH (1,1) methods, and Garman and Klass (1980) volatility estimator are used. The empirical results showed that the estimates from each method vary significantly, and these disparities in the results might be due to misspecification in GARCH (1,1) models. The intraday volatility model estimation results showed that although stock price volatilities in all sectors are positively and significantly affected by exchange rate volatility, their magnitudes vary significantly. Taken together, this implies the presence of vast heterogeneities in the responses of sectoral stock price volatilities to exchange rate volatility. The results encourage policymakers to pay special attention to these heterogeneities to prevent capital flights and underinvestment. Additionally, the findings assist investors in making more effective decisions by helping them adapt their investment strategies to factor in exchange rate fluctuations and mitigate the impact of unexpected events in the exchange rate market.

Keywords: Exchange rate volatility, GARCH, Stock prices, Türkiye
JEL Code: G10, G12

Stock prices become more volatile in recent years in almost all markets around the globe. Economic turmoil in global markets, largely caused by the COVID-19 pandemic, aftershocks of the 2009 financial crisis and its lasting effects, and the Russia-Ukraine war, has resulted in the disruption of the global supply chain, fluctuations in global output, decelerated growth, increased risk premiums in the debt markets, heightened volatility in financial markets, and eroded confidence indicators worldwide. This trend has progressively shaped macroeconomic and financial variables in the developed and developing markets through global economic dynamics, resulting in amplified fluctuations in their macro-financial credentials (Altintas & Yacouba, 2018).

For several reasons, exchange rate volatility seems to be the most prominent factor among the variables that significantly contribute to the observed upsurge in stock price volatility in recent years. Implementing a free-floating exchange rate in conjunction with financial deregulation has serious implications for capital inflows, financial globalization dynamics, and cross-border investments (Dahir et al., 2018). In globally integrated economies, exchange rate changes play a pivotal role in how climate changes, environmental disasters, and political turmoil manifest as disruptions in supply chains and increased uncertainties, primarily through their influence on international pricing responsiveness.

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Exchange rate dynamics is a widely recognized phenomenon that substantially influences diverse economic indicators, such as trade, investment, and economic growth. Developing economies receive more capital inflows and cross-border investments than developed economies owing to their accelerated growth rates, making them appealing to international investors. In turn, the investment decisions are closely related to the uncertainties observed in exchange rate markets. Furthermore, in emerging market economies like Türkiye, where the currency is frequently exposed to fluctuations arising from internal and external factors, exchange rate volatility can engender many spillover effects across various sectors of the economy. Thus, these effects can bear significant implications for investors, policymakers, and businesses operating within Türkiye, thereby affecting the behavior of the stock market.

The relationship between exchange rates and stock market behavior has been studied for decades, and tremendous literature accumulated over time on the subject. Earlier studies on the relationship between exchange rates and stock markets include Franck and Young (1972), Solnik (1987), Bartov and Bodnar (1994), Ajayi and Mougouė (1996), Jorion (1991), Chow et al. (1997), Joseph and Vezos (2006), Attari and Safdar (2013), Olugbode et al. (2014), Lin (2012), Zhao (2010), Kennedy and Nourzad (2016), Abbas and Badshah (2017), Khan et al. (2018), Agyei et al. (2022), Qureshi et al. (2022), and Hassan et al. (2023). Recent literature has also focused on investigating the intra-day analysis of the aggregate and sectoral stock market returns/volatility (see; Rai & Garg, 2022; Wu et al., 2024). There is a considerable amount of literature on the relationship between exchange rate returns/volatility and stock price returns/volatility in Türkiye. However, previous studies have either focused on individual sectors (Çelik, 2020; Kasman, et al., 2011) or the aggregate stock market (Türsoy, 2017; Sensoy & Sobaci, 2014; Guler, 2020; Mechri et al., 2019; Rjoub, 2012; Mwambuli et al., 2016) and or considered only a few sectors (Çatık et al., 2020; Ozun, 2007; Sivrikaya, 2021). It is worth mentioning that Çatık et al. (2020) study has been the most detailed sectoral analysis of the exchange rate impact on stock price/returns. They conducted a sectoral-level analysis of 12 sectors' stock return responses to exchange rates. However, their analysis only focused on returns and not volatility.

Having reviewed the empirical literature on the relationship between exchange rate volatility and stock market volatility, we identified two noteworthy points that require more in-depth research. Firstly, the findings of previous studies have been generalized over all sectors through aggregate market analysis. Nevertheless, the aggregate estimation of parameters may lead to biased estimates and misleading conclusions (Pesaran et al., 1989; Lee et al., 1990; Lee & Pesaran, 1993; Lee, 1997). This is because the heterogeneity of sector-specific sensitivities to exchange rate fluctuations may vary significantly. The aggregate economy can be disaggregated into units such as firms, households, and sectors, for that matter. Sectors' characteristics, compositions, policies, and regulations vary and that causes the heterogeneities of sectors' responses to policy changes (Kaplan, 2003). Therefore, general conclusions drawn from aggregate data might not apply to individual sectors within the stock market. Additionally, Narayan and Sharma (2011) asserted that markets are heterogeneous because each sector operates under its own set of policies and regulations. Therefore, treating the whole economy, in our case, the whole stock market, as a single entity leads to biased estimates. These relationships may be obscured, leading to invalid estimates and policy conclusions for that matter. On the contrary, sector-specific analysis overcomes these estimation problems and deficiencies as it explores the heterogeneities of the stock market sectors.

The second aspect deserving further investigation in the literature is that the family of Generalized Autoregressive Conditional Heteroskedasticity (GARCH) models, commonly used for modeling volatility, may suffer from model misspecification issues, resulting in inefficient estimates and potentially lead to misleading conclusions about the relationship between exchange rate and stock price volatility. It is a well-known fact that the univariate GARCH models are estimated using the maximum likelihood (ML) estimation method and the validity of ML estimates is very sensitive to the choice of the distribution assumption in the estimation of the empirical model. Engle and González-Rivera (1991) evidenced that the misspecification of the distribution densities could result in a loss of efficiency by 84% of maximum likelihood estimation-based parameter estimates of GARCH models. The available distributions densities used include standard normal (Bollerslev, 1986), Student-t (Bollerslev, 1987), generalized error (Engle & González-Rivera, 1991; Nelson, 1991), gamma (Engle & González-Rivera, 1991), -stable (Mittnik et al., 2002), max-entropic (Rockinger & Jondeau, 2002), and many others. According to Engle and González-Rivera (1991), even if the mean and variance equations are well specified but we do not know the probability density functions, the closest approximation to the true generating mechanism should come from the data. Thus, exchange rate volatility and stock are generally studied using these distribution densities, which may suffer from misspecification issues, resulting in invalid conclusions.

In light of the earlier discussions, the current study attempts to empirically measure the impact of exchange rate volatility on stock price volatility. To restrain from biasedness and inefficiency caused by induced misspecification in the volatility equation from the mean equation of the GARCH family of models, we employ the Garman and Klass (1980) volatility approach, which measures intra-day volatility from the open, close, high, and low log prices of the stock market. Unlike the traditional GARCH family models used in previous studies that rely solely on closing prices for volatility estimation, this approach captures real volatility patterns, including intraday variability and price information. Fiszeder (2018) has highlighted the superior efficiency of variance estimators based on low, high, open, and closing prices, as demonstrated by empirical and simulated evidence from Fiszeder and Perczak (2013), Garman and Klass (1980), Parkinson (1980), Rogers and Satchell (1991), and Yang and Zhang (2000). The study's focus on intraday variability and price information is particularly valuable for investors looking to leverage opportunities in the market. Estimating the parameters of the volatility model overcomes the potential misspecification issues related to GARCH models.

Briefly, this study augments the literature by estimating the relationship between exchange rate volatility and sectoral stock market volatility, considering sectoral heterogeneity. Additionally, the Garman and Klass (1980) technique, known for capturing authentic volatility patterns, is employed to gauge the volatility of both sectoral stock prices and exchange rates. With its focus on intraday variability and price information, this approach is of paramount interest to investors seeking to capitalize on leveraging opportunities. The study, therefore, contributes to the intra-day volatility analysis of financial markets. Moreover, we show that the Garman and Klass (Henceforth GK) volatility estimator-based-simple volatility regression model would not suffer from the usual misspecification issues associated with GARCH models. Consequently, the research findings from this study not only assist investors in making more informed decisions by adapting their investment strategies to account for exchange rate fluctuations but also help them mitigate the impact of unforeseen events in the exchange rate market. In sum, our study contributes valuable insights to aid investors in adapting their investment strategies and managing the impact of unexpected events in the foreign exchange market.

Method

Data

The empirical analysis conducted in this study focuses on the sectoral Turkish stock market from April 29, 2003, to April 25, 2023. The selected period began in 2003 when most sectors' data became available. We utilized daily stock price data for 27 sectors, which encompass all BIST sectors categorized by the Public Disclosure Platform based on the activities of a group of companies. This platform is an electronic system that publicly discloses official Borsa Istanbul and capital market regulations. Table 1 lists the sectors, their index codes, and the number of companies in each sector.

Table 1
Sector details.

Index Name	Index Code	No. of companies
BIST INDUSTRIALS	XUSIN	208
BIST SERVICES	XUHIZ	114
BIST FINANCIALS	XUMAL	129
BIST TECHNOLOGY	XUTEK	33
BIST BANKS	XBANK	12
BIST INFORMATION TECHNOLOGY	XBLSM	31
BIST ELECTRICITY	XELKT	29
BIST LEASING FACTORING	XFINK	7
BIST REAL ESTATE INVESTMENT TRUSTS	XGMYO	43
BIST FOOD BEVERAGE	XGIDA	36
BIST HOLDING AND INVESTMENT	XHOLD	50
BIST TELECOMMUNICATION	XILTM	2
BIST CONSTRUCTION	XINSA	12
BIST WOOD PAPER PRINTING	XKAGT	16

BIST CHEMICAL PETROLEUM PLASTIC	XKMYA	42
BIST MINING	XMADN	6
BIST INVESTMENT TRUSTS	XYORT	9
BIST BASIC METAL	XMANA	24
BIST METAL PRODUCTS MACHINERY	XMESY	38
BIST INSURANCE	XSGRT	6
BIST SPORTS	XSPOR	4
BIST NONMETAL MINERAL PRODUCT	XTAST	21
BIST TEXTILE LEATHER	XTEKS	21
BIST WHOLE AND RETAIL TRADE	XTCRT	23
BIST TOURISM	XTRZM	12
BIST TRANSPORTATION	XULAS	10
BIST CORPORATE	XKURY	51

Source: *Authors own creation*

The TL/Dollar nominal exchange rate data is used. The daily stock price data for all sectors and exchange rates were retrieved from the Refinitiv Eikon DataStream (2023). We then computed the daily returns using the following equation.

$$R_{i,t} = lnP_{i,t} - lnP_{i,t-1} \qquad (1)$$

where $R_{i,t}$ is the daily continuously compounded returns of the sector i at the time t. $P_{i,t}$ is sector i price at t time. ln denotes the natural log operator. Figure 1 graphically presents the returns series of all 27 sectors. The returns of all sectors exhibit a similar pattern of volatility clustering and persistency.

Figure 1

Plots of the sectoral returns
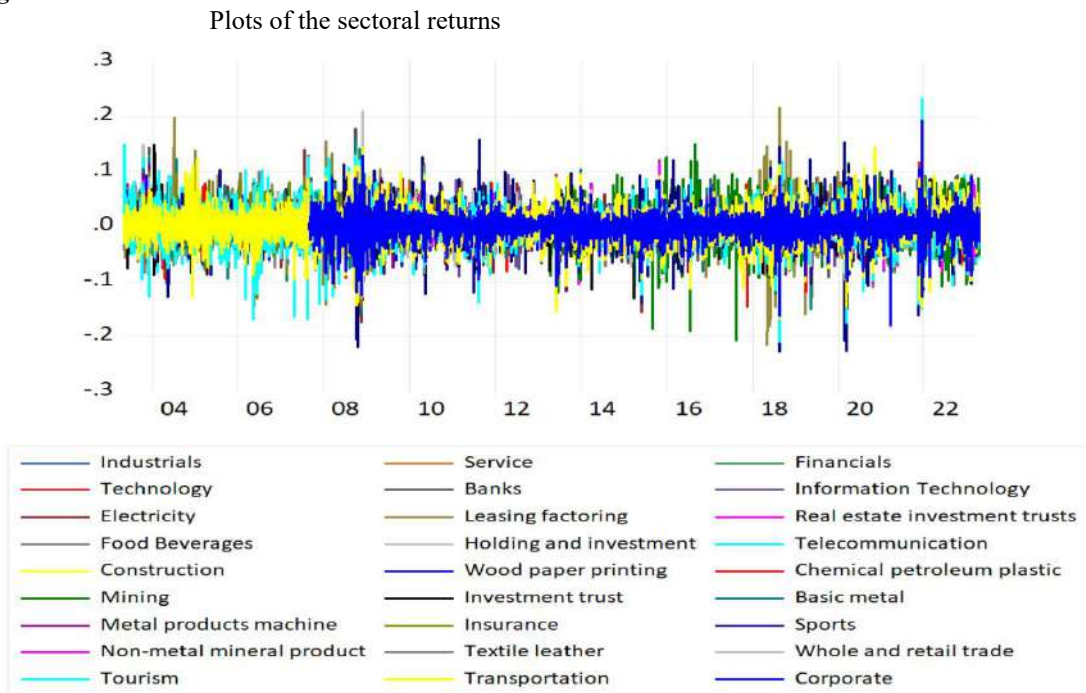
Source: *Authors own creation*

The GK approach is used to compute all volatility measures. The GK's measure uses all relevant information in stock prices, such as high, low, opening, and closing prices, to estimate volatility, as opposed to GARCH family models, which use only the closing prices that are merely a "snapshot" of the process. High and low prices during the trading interval require continuous monitoring to establish their values. Intuition would then tell us

that high/low prices contain more information regarding volatility than close prices (Garman & Klass, 1980). Molnár (2016) contended that GK (1980) volatility is less noisy than Parkinson's (1980) volatility under ideal conditions of Brownian motion with zero drift because it utilizes open and close prices as well in volatility estimations. The GK approach has been used by several researchers (see; Bašta & Molnár, 2018; Enoksen et al., 2020; Fiszeder, 2018; Fiszeder et al., 2019; Haykir & Yagli, 2022; Molnár, 2016). Equation 1 represents the GK (1980) volatility measure.

$$EXV_t = \sqrt{\frac{1}{2}(eh_t - el_t)^2 - (2log2 - 1)ec_t^2} \tag{2}$$

where;

$$eh_t = \log(\text{high}_t) - \log(\text{open}_t)$$
$$el_t = \log(\text{low}_t) - \log(\text{open}_t)$$
$$ec_t = \log(\text{close}_t) - \log(\text{open}_t)$$

EXV_t is the measure of nominal exchange rate volatility in day t, $high_t$ represents the highest rate of the nominal exchange rate traded in day t, low_t is the lowest rate of nominal exchange rate traded in day t, $close_t$ is the closing rate in day t, $open_t$ is the opening exchange rates at the time markets are opened in day t. Figure 2 plots the raw exchange rates and the calculated exchange rate volatility. It shows that the Turkish Lira was most stable between 2010 and the end of 2013, and its volatility was highest between 2018 and 2023.

Figure 2
Daily nominal exchange rate prices and volatility
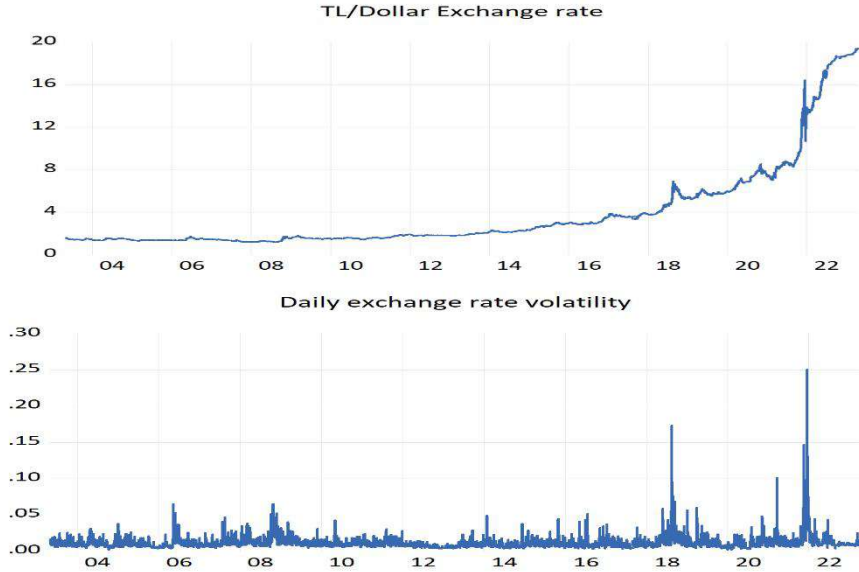
Source: Authors own creation

Econometric model

The study analyzes the correlation between sectoral stock market volatility and exchange rate volatility while comparing two volatility measures. The researchers used a multiple-asset pricing model, where the sectoral indices represent all the market's risky assets, and the average market returns proxy the market portfolio. The study also employs a multiple-risk asset regression model, as in Equation 3.

$$R_{i,t} = \beta_0 + \beta_{i,m}R_{M,t} + \beta_{i,ex}EXV_t + \varepsilon_{i,t} \tag{3}$$

where $R_{i,t}$ is the daily returns of the ith sector in period t, EXV_t is the GK volatility of the nominal exchange rate in period t, $R_{M,t}$ is the daily market average returns, calculated at each t as;

$$R_{M,t} = \frac{\sum_{n=1}^{N} R_{i,t}}{N} \tag{4}$$

where N denotes the total number of sectors. The average market returns are used to represent the total market returns. The coefficient of the total market return, $\beta_{i,m}$, is the market beta, which gauges the sensitivity of the return of the ith sector to the return of the common factor or the market portfolio returns.

We used equation 4 to assess the impact of exchange rate volatility on sectoral-level market volatility, as measured by the GK volatility estimator.

$$SV_{i,t} = \beta_0 + \beta_{i,s}SV_{i,t-1} + \beta_{i,ex}EXV_t + \varepsilon_{i,t} \tag{5}$$

where $SV_{i,t}$ is the sector-specific volatility. The lag sector-specific sector volatility ($SV_{i,t-1}$) captures the impact of possible missing variables in the regression model, which reduces the chance of model misspecification. Equations 3 and 5 are estimated using the Huber-White robust standard error correction method for autocorrelation and heteroskedasticity.

The second stage of the model specification continues with the Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model. Engle (1982) pioneered the GARCH family of models, which was later extended by Bollerslev (1986) and Taylor (1987).

GARCH models require the estimation of the conditional mean and the conditional volatility model. For comparison purposes, we use the reduced form of the asset pricing model as the conditional mean equation.

$$R_{i,t} = \alpha_{i,0} + \alpha_{i,1}R_{M,t} + \alpha_{i,2}EXV_t + \varepsilon_{i,t} \tag{6}$$

Where $\alpha_{i,0}$ is the constant term, $R_{i,t}$ is the compounded daily returns of the ith sector. $\alpha_{i,1}$ is the sector's responsiveness to the total market return. $\alpha_{i,2}$ measures sectoral returns' responsiveness to exchange rate volatility. $\varepsilon_{i,t}$ is the disturbance term, known to have non-normal distribution with mean 0 and heteroskedastic, i.e., $\varepsilon_{i,t} \sim N(0, \sigma_{i,t}^2)$.

Then, the conditional variance model is used in the GARCH modeling, which involves incorporating several factors to determine the conditional variance. These factors include a long-term volatility term ω_i, which is a weighted average, sensitivity to the squared residuals of the previous period, the ARCH term $\varepsilon_{i,t-1}^2$, and the previous period's fitted conditional volatility from the model, the GARCH term $\sigma_{i,t-1}^2$, for the ith sector. The GARCH(1,1) is used because of its simplicity and being the most robust of the family of volatility models (Engle, 2001). Moreover, the GARCH (1,1) is arguably the most fundamental volatility model, and this model illustrates the general idea well. Equation 7 expresses the GARCH (1,1) model.

$$\sigma_{i,t}^2 = \omega_i + \sum_{i=1,q} \delta_i \varepsilon_{i,t-1}^2 + \sum_{j=1,p} \rho_i \sigma_{i,t-1}^2 \tag{7}$$

where $\varepsilon_{i,t} = \sigma_{i,t}^2 \vartheta_{i,t}$ and $\vartheta_{i,t} \sim N(0,1)$. δ_i is the coefficient of the ARCH term and ρ_i is the coefficient of the past fitted conditional volatility, the GARCH term. We assumed the Generalized Error Distribution (GED) of the error because GARCH with GED distribution models has been observed to outperform all models (Kumar & Patil, 2016).

The volatility of an asset may depend on other factors besides its historical fluctuations (Napari & Parlaktuna, 2022). Following the approach of Engle and Patton (2007), Kur et al. (2021), Glosten et al. (1993), Sakarya and Ekinci (2020), and Napari and Parlaktuna (2022), the GK measure of exchange rate volatility is added to the conditional variance equation. Therefore, the GARCH-X equation can be written as;

$$\sigma_{i,t}^2 = \omega_i + \sum_{i=1,q} \delta_i \varepsilon_{i,t-1}^2 + \sum_{j=1,p} \rho_i \sigma_{i,t-1}^2 + \theta_i EXV_t \tag{8}$$

where θ_i measures the sensitivity of the sector i^{th} volatility to the exchange rate volatility, and EXV_t is the volatility of the TL/Dollar exchange rate in period t.

Results and Discussion

The study assesses the impact of volatility, measured by GK (1980), on stock market sectoral volatility and compares it to an analogous model for the GARCH (1,1) mean equation. The ordinary least squares (OLS) are used to estimate multiple linear regression, using the Huber-White approach to obtain robust standard errors. We report the results for the two analogous models side-by-side for each sector in Table 2.

As argued before, misspecification can decrease the validity of volatility estimates from GARCH family models as the mean and the variance equations are estimated simultaneously using the maximum likelihood method. The results reported in Table 2 depict differences in the magnitude and direction of the parameter estimates from the two analogous reduced asset pricing models. The market beta estimates in both estimations marginally differ from each other, which could result from the misspecification of the models. Additionally, the exchange rate volatility elasticity estimates from the two analogous models vary in direction, magnitude, and significance level. The disparities in the estimates may be due to misspecifications and wrong assumptions of the distribution density function of the GARCH (1,1) mean equation. Engle and González-Rivera (1991) found that the wrong specification of the distribution densities and the parameter estimates of GARCH models could lose up to 84% of their efficiency. Therefore, the GARCH modeling of volatility estimates would be biased and invalid.

Table 2

Estimation results of return equations

Sectors	Multiple linear regression returns equation			GARCH (1,1) mean returns equation		
	Cons. (β_0)	$R_{M,t}$ ($\beta_{i,m}$)	*EXV* ($\beta_{i,er}$)	*Cons.* ($\alpha_{i,0}$)	$R_{M,t}$ ($\alpha_{i,1}$)	*EXV* ($\alpha_{i,2}$)
Industry	-0.0001	0.9608***	0.0152	-2.70E-05	0.953757***	0.006916
	(0.0002)	(0.0045)	(0.0142)	(0.000121)	(0.004397)	(0.010699)
Service	0.0002	0.9225***	-0.0127	0.000179	0.922509***	-0.012699
	(0.0002)	(0.0073)	(0.0168)	(0.000428)	(0.011883)	(0.023208)
Financials	-0.0005	1.1814***	0.0293	-0.001049***	1.207029***	0.072204***
	(0.0003)	(0.0091)	(0.0267)	(0.000209)	(0.007692)	(0.019629)
Technology	0.0003	1.0009***	-0.0182	-0.000337	0.966373***	-0.036539
	(0.0003)	(0.0107)	(0.0237)	(0.000327)	(0.009057)	(0.022678)
Banking	-0.0005	1.2482***	0.0245	-0.001419***	1.284181***	0.100831***
	(0.0005)	(0.0136)	(0.0443)	(0.000318)	(0.009958)	(0.030532)
Information Technology	0.0005	0.9706***	-0.0487**	-0.000281	0.941094***	-0.068828***
	(0.0003)	(0.0111)	(0.0199)	(0.000242)	(0.006968)	(0.019119)
Electricity	0.0004	0.9815***	-0.0569**	-0.000451**	0.960012***	-0.054875**
	(0.0003)	(0.015)	(0.0248)	(0.000225)	(0.015750)	(0.025391)
Leasing factoring	0.0006	1.0009***	-0.0549	0.000324***	0.902721***	-0.120584***
	(0.0006)	(0.0177)	(0.0487)	(2.53E-05)	(0.003383)	(0.000265)
Real estate investment trusts	0.0001	0.9962***	-0.0359	7.48E-05	0.982284***	-0.061326***
	(0.0003)	(0.0102)	(0.0255)	(0.000245)	(0.010062)	(0.021668)
Food Beverages	0.0003	0.8521***	-0.028	9.14E-05	0.849249***	-0.029987
	(0.0003)	(0.0124)	(0.0272)	(0.000294)	(0.013745)	(0.023723)
Holding and investment	-0.0005**	1.0934***	0.032	-0.000588***	1.096007***	0.033051*
	(0.0002)	(0.0075)	(0.0203)	(0.000197)	(0.007858)	(0.017064)
Telecommunication	-0.0005	0.9594***	0.0257	-0.000554	0.913672***	-0.002693
	(0.0005)	(0.0164)	(0.0429)	(0.000438)	(0.016213)	(0.039532)
Construction	0.0001	0.8483***	0.0099	-0.000279	0.815574***	-0.005873
	(0.0006)	(0.0203)	(0.0444)	(0.000430)	(0.015174)	(0.035913)
Wood paper printing	0.0006*	0.9843***	-0.0627**	0.000350	0.957269***	-0.081864***
	(0.0003)	(0.0105)	(0.0273)	(0.000324)	(0.010801)	(0.027457)
Chemical Petroleum Plastic	-0.0003	0.9604***	0.0357	-0.000134	0.951360***	0.003088
	(0.0004)	(0.0103)	(0.0313)	(0.000270)	(0.008274)	(0.022639)
Mining	0.0005	1.0991***	-0.0414	-0.001820*	1.086648***	0.038124
	(0.0007)	(0.0284)	(0.0412)	(0.001007)	(0.030129)	(0.077642)
Investment trust	0.0006	0.8646***	-0.0631	0.000857	0.779316***	-0.134427**
	(0.0006)	(0.0142)	(0.0511)	(0.000594)	(0.024800)	(0.056410)
Basic metal	-0.0006	1.0497***	0.0650**	-0.001042***	1.014713***	0.067629**
	(0.0004)	(0.0123)	(0.0291)	(0.000359)	(0.010767)	(0.031736)
Metal products machine	0.0001	0.9997***	-0.0023	3.45E-06	0.987579***	-0.015818
	(0.0002)	(0.0085)	(0.0193)	(0.000267)	(0.007884)	(0.022131)
Insurance	0.0005**	0.9786***	-0.0410**	0.000478*	0.916740***	-0.069676***
	(0.0002)	(0.0078)	(0.0167)	(0.000277)	(0.012973)	(0.025757)
Sports	0.0004	0.8224***	-0.0588	-0.000313***	0.685135***	-0.091445***
	(0.0008)	(0.0238)	(0.0636)	(1.63E-06)	(0.004255)	(0.000937)
Non-metal mineral product	0.0004	0.9001***	-0.0405*	0.000527**	0.868344***	-0.083552***
	(0.0003)	(0.0092)	(0.0246)	(0.000232)	(0.007462)	(0.020610)
Textile leather	0.0006**	0.9173***	-0.0528**	0.000588***	0.876999***	-0.085258***
	(0.0003)	(0.011)	(0.0234)	(0.000215)	(0.009967)	(0.014951)
Whole and retail trade	0.0007**	0.8449***	-0.0475*	-2.45E-05	0.824015***	-0.028320
	(0.0003)	(0.0134)	(0.0284)	(0.000245)	(0.009509)	(0.019285)
Tourism	0.0002	1.0167***	-0.0359	-0.000103	0.934684***	-0.078663
	(0.0007)	(0.0178)	(0.0572)	(0.000606)	(0.014907)	(0.060510)
Transportation	0.0002	1.0642***	0.0098	-0.000547	1.061327***	-0.006937
	(0.0004)	(0.0146)	(0.0332)	(0.000430)	(0.015443)	(0.039123)
Corporate	-0.0004**	1.0399***	0.0221	-0.000498***	1.062513***	0.036756***
	(0.0002)	(0.0073)	(0.0152)	(0.000150)	(0.005667)	(0.013604)

Note. Huber/White is used to make the estimates robust to heteroskedasticity and autocorrelation of the errors.

Source: Authors own creation

The research proceeds with the analysis of the volatility equations. We directly measured volatility using the GK measure to avoid misspecification issues that can result in invalid estimates. Table 3 presents the results for a simple OLS regression model of volatility and the GARCH (1,1) variance equation for comparison. The models are estimated using the Huber-White standard error correction procedure to obtain robust standard errors. The GK volatility estimator estimates volatility from low, high, closing, and opening prices and has less noise compared to the GARCH model (Molnár, 2016). Additionally, according to empirical and simulated evidence by Fiszeder and Perczak (2013), GK (1980), Parkinson (1980), Rogers and Satchell (1991), Yang and Zhang (2000), variance estimators based on low, high, open, and closing prices are 5 to 7 times more efficient than estimators constructed

exclusively on closing prices. Our results in Table 3 indicate that the volatility model with the GK volatility estimator produced a more significant model compared to the GARCH (1,1) variance model. Each component of the model is statistically significant at a 1% level. The misspecification issues that may arise from the mean equation can render the estimates of variance equation parameters biased and invalid. As evident from Table 3, the estimates of the exchange volatility coefficient in the GARCH (1,1) variance equation are insignificant for a reasonable number of sectors, which could have been obscured by misspecification issues. Therefore, GK's volatility estimator-based model provides better and more accurate estimates than the GARCH (1,1) model.

Table 3
Estimation results of volatility equations

| Sector | GK volatility equations | | | GARCH (1,1) variance equations | | | |
	Cons. (β_0)	$SV_{i,t-1}$ ($\beta_{i,s}$)	EXV ($\beta_{i,er}$)	Cons. (ω_i)	ARCH (1) (δ_i)	GARCH (1) (ρ_i)	EXV (θ_i)
Industrials	0.0047*** (0.0004)	0.4157*** (0.0239)	0.3002*** (0.031)	9.12E-07 (6.22E-07)	0.087403*** (0.023896)	0.774001*** (0.093505)	0.000201** (0.000101)
Service	0.0059*** (0.0004)	0.4222*** (0.0239)	0.2558*** (0.0344)	5.37E-05*** (1.96E-05)	0.150000*** (0.043627)	0.600000*** (0.133863)	0.000000 (4.3E-104)
Financials	0.0085*** (0.0005)	0.3561*** (0.0184)	0.3201*** (0.0384)	3.44E-06*** (1.08E-06)	0.127751*** (0.013395)	0.601829*** (0.053226)	0.000998*** (0.000227)
Technology	0.0069*** (0.0005)	0.4482*** (0.0257)	0.2994*** (0.0371)	7.38E-06** (3.05E-06)	0.128443*** (0.026450)	0.790206*** (0.052958)	0.000428** (0.000214)
Banking	0.0100*** (0.0006)	0.3585*** (0.0204)	0.3712*** (0.046)	1.90E-06 (1.70E-06)	0.160977*** (0.019609)	0.687352*** (0.047764)	0.001622*** (0.000422)
Information Technology	0.0081*** (0.0005)	0.4342*** (0.0247)	0.2525*** (0.036)	4.23E-06*** (1.63E-06)	0.109037*** (0.011821)	0.829145*** (0.016666)	0.000515*** (0.000133)
Electricity	0.0078*** (0.0006)	0.4734*** (0.0212)	0.2713*** (0.0413)	5.82E-06* (3.27E-06)	0.113458*** (0.040482)	0.837473*** (0.068039)	0.000376 (0.000325)
Leasing factoring	0.0076*** (0.0008)	0.5767*** (0.03)	0.2549*** (0.0472)	8.34E-06* (4.44E-06)	0.252492*** (0.037458)	0.681191*** (0.043132)	0.001757*** (0.000536)
Real estate investment trusts	0.0074*** (0.0004)	0.4468*** (0.0214)	0.2151*** (0.0307)	9.49E-06*** (3.08E-06)	0.139111*** (0.022376)	0.681708*** (0.064485)	0.000865*** (0.000277)
Food Beverages	0.0081*** (0.0005)	0.4225*** (0.0211)	0.2215*** (0.0346)	4.73E-06 (3.54E-06)	0.101414** (0.039928)	0.835504*** (0.093316)	0.000504 (0.000518)
Holding and investment	0.0076*** (0.0004)	0.4021*** (0.0188)	0.2840*** (0.0339)	2.77E-06 (1.97E-06)	0.089180*** (0.026135)	0.784347*** (0.116303)	0.000415 (0.000321)
Telecommunication	0.0088*** (0.0006)	0.4502*** (0.0205)	0.3009*** (0.0517)	8.02E-07 (1.34E-06)	0.061678** (0.027756)	0.918698*** (0.043025)	0.000406 (0.000317)
Construction	0.0084*** (0.0006)	0.4553*** (0.0314)	0.1867*** (0.0378)	5.30E-06 (4.42E-06)	0.111368*** (0.023421)	0.797815*** (0.053606)	0.001352*** (0.000522)
Wood paper printing	0.0080*** (0.0005)	0.4519*** (0.0212)	0.2187*** (0.0379)	6.41E-06 (3.93E-06)	0.116354*** (0.034583)	0.811708*** (0.073089)	0.000306* (0.000183)
Chemical Petroleum Plastic	0.0075*** (0.0005)	0.3915*** (0.0215)	0.3006*** (0.0333)	6.72E-06** (2.75E-06)	0.092628*** (0.018684)	0.736083*** (0.066074)	0.001155*** (0.000401)
Mining	0.0132*** (0.001)	0.4367*** (0.0263)	0.2579*** (0.0725)	0.000133*** (4.22E-05)	0.204304*** (0.042915)	0.516181*** (0.115484)	0.002904* (0.001714)
Investment trust	0.0061*** (0.0005)	0.5342*** (0.0262)	0.1773*** (0.0293)	7.88E-06 (4.81E-06)	0.210011*** (0.038883)	0.633962*** (0.073053)	0.001610*** (0.000444)
Basic metal	0.0105*** (0.0005)	0.2546*** (0.0187)	0.4845*** (0.0407)	4.04E-06* (2.07E-06)	0.093305*** (0.015761)	0.828061*** (0.035678)	0.000988*** (0.000330)
Metal products machine	0.0069*** (0.0004)	0.3970*** (0.0216)	0.2976*** (0.0291)	3.02E-06 (1.93E-06)	0.089311*** (0.027886)	0.834430*** (0.073597)	0.000290 (0.000193)
Insurance	0.0069*** (0.0003)	0.5002*** (0.0127)	0.2019*** (0.0186)	3.51E-06* (1.94E-06)	0.105331*** (0.025205)	0.803746*** (0.064860)	0.000674** (0.000338)
Sports	0.0085*** (0.0007)	0.5238*** (0.0353)	0.1613*** (0.0429)	1.20E-05* (6.83E-06)	0.231863*** (0.032035)	0.680305*** (0.042796)	0.003078*** (0.000789)
Non-metal mineral product	0.0051*** (0.0004)	0.4680*** (0.0258)	0.2069*** (0.0277)	2.20E-06** (9.95E-07)	0.129704*** (0.027375)	0.804084*** (0.046680)	0.000250*** (9.63E-05)
Textile leather	0.0069*** (0.0005)	0.4320*** (0.0247)	0.2603*** (0.0336)	1.32E-05** (6.05E-06)	0.143368*** (0.032337)	0.638837*** (0.136894)	0.001067* (0.000632)
Whole and retail trade	0.0076*** (0.0007)	0.4175*** (0.0308)	0.2444*** (0.0397)	8.61E-06** (3.43E-06)	0.124601*** (0.024495)	0.734197*** (0.064407)	0.001063*** (0.000362)
Tourism	0.0109*** (0.0007)	0.4421*** (0.0221)	0.2781*** (0.0442)	1.04E-05** (4.78E-06)	0.135889*** (0.025869)	0.799805*** (0.044711)	0.000896** (0.000365)
Transportation	0.0095*** (0.0005)	0.4073*** (0.0201)	0.3654*** (0.0378)	4.49E-06 (3.00E-06)	0.081149*** (0.027143)	0.878905*** (0.049147)	0.000582 (0.000380)
Corporate	0.0053*** (0.0004)	0.4350*** (0.0244)	0.2939*** (0.0317)	7.85E-08 (7.70E-08)	0.038796*** (0.010733)	0.955373*** (0.013347)	8.47E-06 (1.00E-05)

Note. Huber/White makes the estimates robust to heteroskedasticity and autocorrelation of the errors.
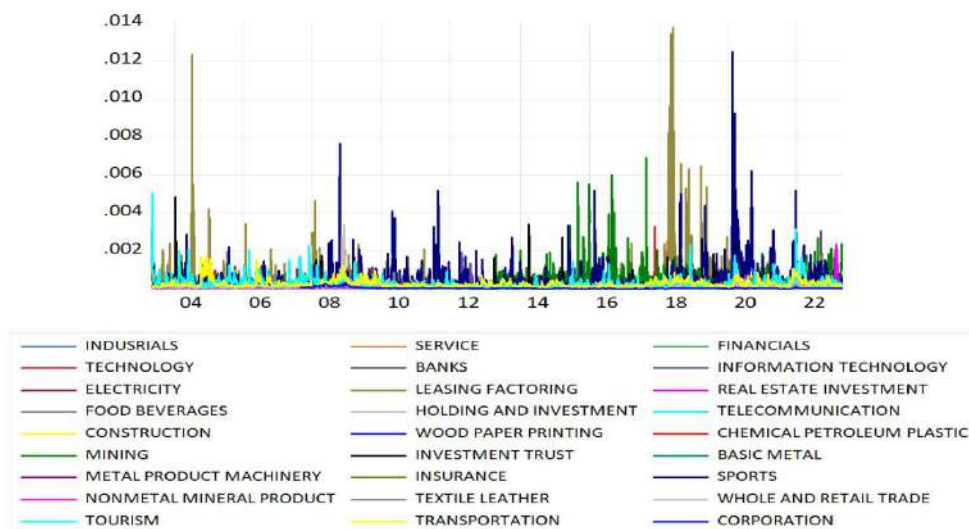
Source: Authors own creation

We then interpret the estimated OLS model with the GK volatility estimator. The results show the estimate of lag volatility for each sector impacts the current volatility positively and is statistically significant at the 1% level. Generally, exchange rate volatility significantly and positively transmits to all sectors of the BIST market. We observe that the exchange rate's volatility is transmitted most to the basic metal sector. The banking sector is the second most receptive to exchange rate volatility, preceded by the transportation sector. Çatık et al. (2020) reported similar findings in which the banking sector was the most exposed sector to exchange rate risk. On the contrary, the sports sector is the least responsive to exchange rate volatility, accompanied by the investment trust and construction sectors. This is because the activities of the sports sector do not depend on exports and imports, unlike the basic metal sector, which heavily relies on imports for its raw materials. The banking sector is also highly responsive to exchange rate volatility, as fluctuations can affect assets denominated in foreign currencies and lead to uncertainty about future debt costs. Similarly, transportation companies, especially those involved in shipping and logistics, are highly sensitive to exchange rate volatility due to their heavy dependence on oil prices for operations. Fluctuations in exchange rates can impact fuel costs, affecting profit margins and stock price volatility.

The basic metal, banking, and transportation sectors are sensitive to changes in exchange rates. This means that these sectors are more at risk of being affected by fluctuations in exchange rates and may see reduced investment during times of high exchange rate volatility. On the other hand, the sports investment trust and construction sectors are the least affected by exchange rate volatility. This could be due to differences between sectors, such as their characteristics, compositions, policies, and regulations, leading to variations in how they respond to changes in exchange rates. Therefore, policymakers and investors should pay close attention to these sectoral differences during periods of high exchange rate volatility.

Figures 3 show the conditional variance for all 27 sectors from the GARCH (1,1) estimations in a stacked graph. The figure reveals a similar pattern of conditional variance across all sectors. Conditional variance peaked in 2021 for all sectors and was also high in the early months of 2020, coinciding with the start of the COVID-19 pandemic. There are noticeable spikes in the conditional variance between 2015 and 2020, corresponding to the attempted coup in 2016 and the 2018 forex exchange rate market crackdown. Additionally, the conditional variances of all sectors were relatively low throughout 2012, indicating a stable period for the Turkish economy. The graphical observations suggest that the most volatile sectors during the global and domestic economic turmoil in 2020 and beyond appear to be "leasing factoring" and sports.

Figure 3
Conditional variance from GARCH (1,1)

Source: Authors own creation

Conclusions and Recommendations
The study investigates the impact of exchange rate volatility on sectoral returns and volatility by comparing volatility measured by the GK estimator and GARCH-modelled volatility. The ordinary least square-based multiple regressions and the GARCH (1,1) model were employed to estimate two volatility equations. Daily data for 27 BIST

sectors from April 29, 2003, to April 25, 2023, were used. Considering 27 sectors, sector heterogeneity has been explored as all sectors may not respond the same to exchange rate volatility, which complements previous studies for the Turkish stock market. Additionally, the study complements the literature by employing the GK (1980) method to measure the volatility of both sectoral stock prices and exchange rate, which is superior in capturing the real volatility patterns, i.e., intraday variability and information in prices, that are of high interest to investors who take leverage opportunities. This approach also overcomes the misspecification issues common to GARCH models.

We estimated two analogous return equations, one for the GARCH (1,1) mean equation, and the other for a simple OLS-independent reduced asset pricing model. We observed that although the two models are analogous to each other, the parameter estimates vary remarkably from each other in terms of magnitude, direction, and significance level. In GARCH models, because the mean and the variance equations are estimated simultaneously using the maximum likelihood method, misspecification in the mean equation can lead to invalid/biased and inefficient parameter estimates in the conditional volatility (variance) equation. This misspecification may emanate from omitted variables from the mean equation or wrong assumption of the distribution density function, which, according to Engle and González-Rivera (1991), can reduce the efficiency of GARCH models up to 84%. The study further compared the GK-based volatility model to the GARCH (1,1) variance equation results. We observed that the GK-based volatility model produced more significant and reliable estimates than the GARCH (1,1) model. According to the GARCH (1,1) results, the parameter estimates for the exchange rate volatility were insignificant for a reasonable number of the sectors in the analysis, which could be emanating from misspecification issues. The GK estimator-based model is more efficient and robust compared to GARCH (1,1) because variance estimators based on low, high, open, and closing prices are 5 to 7 times more efficient than estimators constructed exclusively on closing prices (Molnár, 2016).

According to the GK-based model, all sectoral stock market volatilities respond positively to exchange rate volatility, but the impact varies across sectors. The basic metal sector is the most responsive to exchange rate volatility, followed by the banking and transportation sectors. This is because the basic metal sector is import-dependent and highly sensitive to exchange rate fluctuations. On the other hand, the banking sector is more susceptible to risks associated with exchange rate fluctuations due to the nature of financial institutions. Exchange rate volatility can lead to uncertainty about future debt costs, increase the risk of bank assets and liabilities, and ultimately lead to a decrease in the stock valuation of banks. As a result, these sectors may experience underinvestment during periods of high exchange rate volatility. Conversely, the sports sector is the least affected by exchange rate volatility, followed by the investment trust and construction sectors. This is logical as the activities of these sectors are not dependent on exports/imports. The variations in sectors' responses to exchange rate volatility may be attributed to differences in characteristics, compositions, policies, and regulations across sectors, leading to heterogeneous responses to fluctuations in exchange rates.

The study recommends policymakers and investors pay special attention to the basic metal, banking, and transportation sectors during periods of high exchange rate volatility to avoid capital flight and underinvestment. The results of this research lead to more effective decision-making processes by assisting investors in adjusting their investment strategies to account for exchange rate variations. The findings also help investors reduce the impact of unexpected events in the foreign exchange market by providing insight into which stock market sectors are affected by exchange rate fluctuations. Diversification, therefore, improves the stability and resilience of investment portfolios in response to changes in the exchange rate market.

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CEO Optimism, Accounting Conservatism and Earnings Management of Listed Manufacturing Firms: Evidence from Asian Emerging Economies

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It is pertinent to understand how CEO optimism and accounting conservatism influence earnings management to verify the reliability and accuracy of financial reporting. The motivation behind this research comes from the possible implications for financial transparency, regulatory oversight, and investor trust while focusing on the usefulness of corporate governance. The research explores the influence of CEO optimism and accounting conservatism on earnings management within Asian emerging economies, analyzing data from listed manufacturing firms between 2010 and 2022. The study finds a negative correlation between accounting conservatism and earnings management while CEO optimism positively correlates with earnings management. These findings imply that conditional conservatism diminishes the possibility for management to inflate earnings. However, CEO optimism increases the likelihood of a firm's earnings management. This research ought to offer a thorough understanding of accounting conservatism and CEO optimism and the effect that these factors have on earnings management from the context of Asian emerging economies.

Keywords: CEO optimism; accounting conservatism; earnings management; Asian emerging economies
JEL: G30, M41

Earlier research shows that the standard and effectiveness of financial reporting factual information influence the success of the firm (Hunjra et al., 2020; Hunjra et al., 2022). The management of a firm's earnings can make valuation and investment choices more difficult. We investigate whether or not conditional conservatism places constraints on earnings management (Aliahmadi, 2023; Boulhaga et al., 2023). Conservatism is a term used to describe an approach to financial reporting that minimizes the value of assets and revenue. An accountant's conservatism is the tendency to require more confirmation to acknowledge profit (positive earnings news) than to recognize losses (Basu, 1997; Alves, 2023). Conservatism is summarized by the phrase "expect no gains, but loss", which means that management detects 'bad news' in declared earnings sooner than 'good news (Rickett et al., 2016). Further, accounting conservatism improves the accuracy of financial reporting information and reduces informational asymmetries, agency conflicts, and management's opportunistic choices (Asri, 2017).

Conditional conservatism has the potential to increase the market value of the firm, which in turn increases the capacity to get low-cost financing from outside sources (Guay & Verrecchia, 2018). Earnings management denotes to the intentional manipulation of accounting records by management in order achieve specific earnings goals (Ruch & Taylor, 2015). Conservatism may lead to improve earning quality and decreases information asymmetry (Abdou et al., 2021). Conservative accounting is employed to ensure that firms do not exaggerate their earnings and the users of their financial reports can trust the information in these statements as they do not lead to overvaluation (Lev & Ohlson, 1982). However, conservative approach in accounting and earnings management have same outcomes as both show bias in preparing financial statement. The difference is that earnings management represents subjective choice made by individuals, conservatism arises from the established accounting standards.

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In addition, conditional conservatism paves the way for the supervisory function of the business, which gives firms who adopt conditional conservatism an advantage in the managerial function of their businesses. Conditional conservatism makes it more difficult to control earnings since it necessitates greater evidence of gains than losses, therefore, it demands that firms recognize expenses and losses when they are certain while controlling the ability to manage earnings with aggressive profit recognition procedures. However, Ball and Shivakumar (2005) maintain that based on past studies, firms possibly manage earnings even though there are restrictions on accruals-based management imposed by conservative reporting standards. Although a loss on that investment is recognized through conservatism, the fund managers aim to avoid making an investment decision that involves a project with a negative net present value wherever possible before making the decision. After the investment project has been completed, a more accurate appraisal of the management's performance can be made using conservative financial accounts.

An important empirical characteristic of corporate finance theory is the firm investment decision misconception (Salehi et al., 2020; Hunjra et al., 2021). In recent years, a new field of study known as behavioural finance has emerged as a credible and relevant explanation of corporate decision-making that is still in its infancy (Mohamed et al., 2020). Managerial overconfidence and a positive outlook are two of the most resounding behavioural findings in corporate settings. Overconfident people in behavioral finance are those who are over-optimistic. A person's predisposition to have unreasonably optimistic views about what the future holds is the concept of optimism (Weinstein, 1980). Managers, in particular, are more prone than the average person to show signs of optimism (Landier & Thesmar, 2009). Overconfident managers have tendency to overstate the potential returns on firms' investments (e.g., Malmendier & Tate, 2005; Lin et al., 2005; Huang-Meier, Lambertides, & Steeley, 2016; Campbell et al., 2011; Alves, 2023). These board members believe that the value of their firms' stock is artificially low because investors are underestimating the potential for future growth or the cash flows from ongoing initiatives. CEOs with overconfidence are keen to take risky decisions which may include manipulation of financial reporting to show more favorable picture of company (Schrand & Zechman, 2012).

Previous research argues that conditional conservatism minimizes the incentives and possibilities for managing profits by requiring more evidence of gain than loss before recognizing any benefit. This restricts earnings management by prompting the rapid reporting of losses, such as through impairments and write-offs. Studies have shown that conditional conservatism is somewhat a matter of judgment because it is dependent on several accounting decisions (Lawrence et al., 2013). This indicates that there is far more nuance and complexity to the connections between accrual earnings management and conditional conservatism. Therefore, it is an intriguing area of study whether businesses may control earnings through accruals, achieve or exceed earnings objectives, and still adhere to their conservative reporting practices. Recent research in the field of accounting has connected overconfidence of managers to several factors, including the accuracy of earnings forecasts (Hilary & Hsu 2011), income smoothing, and the credibility of financial statements (Ahmed & Duellman, 2013).

Our research contributes to this latter school of thought by delving into the link between overconfident management and earnings manipulation. Managerial confidence is related to conservative accounting practices (Ahmed & Duellman, 2013). To be conservative in accounting means to expect no gains and plan for every possible loss. To put it another way, if negative news has more influence in earnings compared to good news, then it stands to reason that this rule favors the latter (Basu, 1997). Overconfident CEOs are more inclined to speed up recognizing gain which is at odds with conservative accounting (Ahmed & Duellman, 2013). They discovered that self-assured chief executive officers are less likely to utilize cautious accounting methods than their counterparts (Malmendier et al., 2011; Campbell et al., 2011). Current study expands this debate by investigating the role of CEO optimism in earnings management.

The study outlines the theoretical underpinnings of conservatism and optimism in financial decision-making and reporting, illustrating how these factors potentially influence earnings manipulation. Firms in Asian emerging economies have distinctive market features and attributes with uncertain economy (Sumiyana, 2020). The financial sector faces many challenges to survive in competitive global business situation (Zhang et al., 2024). Previously, the studies examined the link between accounting conservatism and managerial optimism individually. This examination adds to the literature covering the aspects of conditional conservatism managerial optimism and earnings management from Asian emerging economies. As CEOs are more overconfident in developing economies and they manage earnings in these economies confidently because of having little competition as compared to developed nations (Sumiyana et al., 2023). Further, CEOs in these economies accomplish their responsibilities boldly due to unique organizational structure and closed access to leadership position. Therefore, it will be interesting to investigate how CEOs in Asian emerging economies contribute to manage earnings.4

Further, previous researches have not comprehensively examined the complex relationship between the conservative accounting, CEO optimism and earnings management, mainly in developing countries. This disparity highlights the need of conducting a comprehensive analysis to better understand how these factors are important to determine earnings management. We select manufacturing sector in our study because in competitive business environment worldwide, this sector faces financial hurdles to earn better revenue mainly in emerging economies (Mehmood et al., 2019). Further, managers in emerging countries also face challenges to manage earnings and financial aspects ineffectively (Khan et al., 2020). Understanding the pivotal significance of CEO optimistic behavior and accounting conservatism, this study fills the gap by considering the effects of both factors on earnings management. Our outcomes suggest that accounting conservatism negatively while managerial optimism positively relate to earnings management. The study is helpful for policymakers, regulators and investors. This examination ought to deliver investors a complete grasp of conditional conservatism and managerial optimism and how those factors affect the firm's adaptability to manage its earnings.

The following is a brief overview of the paper's structure: Second, we give an understanding of the related literature. In the third section, the data and methods are given. Sections 4 and 5 summarize and discuss the paper's results and conclusions.

Review of Literature and Hypotheses Development

The present section comprehensively discusses previous studies on accounting conservatism, managerial optimism, and their effects on financial reporting and earnings management. Two different manifestations of conservatism have been identified by the aforementioned Beaver and Ryan (2005) and Ball and Shivakumar (2005). First, accounting can be conservative in the sense that it is ex-ante or unaffected by external factors such as news. Accounting conservatism may depend on managerial ability because managers with high abilities follow accounting conservatism as it is beneficial for stakeholders and firms (Haider et al., 2021). Unrecognized goodwill arises because of the conservative assessment and recognition criteria used for assets and liabilities at their beginning, which results in an ongoing underestimate of net assets. Unconditionally cautious procedures include the rapid expensing of some intangibles like R&D or the accelerated depreciation of P&E. This is because economic losses are recognized into accounting earnings at a sooner and more complete rate than gains due to the stricter verification standards for recognizing losses. This prudence is called the asymmetric timely nature of earnings, as described by Basu (1997). Some situations that call for a conditional conservative approach include the valuation of inventory at a lesser cost or market and the accounting for fixed-asset impairments. Thus, the essential aspects of conditional conservatism are the prompt acknowledgement of economic losses by businesses that will become evident shortly and the imposition of a sticker assessment for the recognition of advantages.

There is a lack of empirical data in the literature on the subject matter, and earlier analytical research offers inconsistent conclusions. One school of thought holds that conditional conservatism is a cause of failure when it comes to managing a business's profits. This can be understood because both conservatism and conditional conservatism reduce managerial opportunities to inflate earnings, thereby reducing the earnings management as suggested by Chen et al., (2007). Moreover, conservative accounting, as advocated by Chen et al., (2007), makes it such that low-profit figures are less indicative of inadequate performance, making earnings management less desirable. These studies assert that conservatism diminishes the probability of managing earnings consistent with the research demonstrating that higher conservatism is favorable and economically beneficial for improving firm performance. Earlier studies indicate that enterprises implementing conditional conservatism in their financial statements reporting benefit in terms of better credit conditions (Lara et al., 2016), with cheaper costs on equity funds (Kim et al., 2013; Li, 2015). The firms that stray from their historically conservative reporting policies to meet or surpass a profit target would no longer reap these benefits or would reap them to a much lesser extent. Conservative policies have been shown to minimize debt expenses, while Ahmed et al. (2002) offer similar justifications. A new stream of analytical research, on the other hand, gives contradictory reasoning and suggests that conservatism might boost revenue management.

Bertomeu et al., (2017) describe that managers increase pay-for-performance contracts to maintain their payment level when conservatism decreases current profitability. The marginal value of profit management will increase as a result of these more stringent contracts. Consistent with this view, Caskey and Laux (2017) indicate that conservatism encourages board scrutiny of the executive team. The value of limiting accounting information to prevent board scrutiny has consequently increased in light of the current climate. Furthermore, Al Ani and Chong (2021) asserted that companies that are more conditionally cautious can manage their earnings more effectively because they can afford larger impairments and contingencies. This may indicate that their financial statements are less manipulated. Previous studies have shown that an inflated balance sheet can act as a barrier to future profit

management and that aggressive accounting actions add up to the balance sheet. Conditionally conservative organizations may absorb impairments and provisions to rein in earnings, but doing so might cost the company the stated conditional conservatism benefits. In light of the above studies, the following hypothetical statement is developed.

H1: Conditional conservatism has a significant impact on earnings management.

Overconfident managers have an optimistic perspective on future risk and returns, and they also overestimate the quality of the information on which they are basing their projections of future business earnings and cash flows. Moreover, firms can reduce risk with effective governance and control processes (Rehman & Ishak, 2022). Some COEs with overconfidence can manage earnings due to their self-belief (Sumiyana et al., 2023). However, any mismanagement practice on governance side and administrative failure may lead to unfavorable financial outcomes (Shah et al., 2019). Effective leadership requires an appropriate amount of self-confidence, but misrepresenting one's ability can result in costly errors (Rajabalizadeh, 2023). In contrast, overconfident CEOs may be helpful in reducing the risk by underestimating possible challenges (Sutrisno et al., 2023). Executives who are too optimistic may inflate their reported earnings for the present quarter by reinvesting funds from future periods. Overconfidence on the part of managers can induce profit smoothing by causing them to overestimate the reliability of future cash flows (Bouwman, 2014). Further, overconfident CEOs being considered as powerful individuals employ more earnings management (Kouaib, 2023). Corporate governance procedures play a crucial part in preventing actual earning management.

Schrand and Zechman (2012) document that executive overconfidence affects the actions of financial reporting. Further, they find that overconfidence increases the chance of fraud in financial statement fraud that needs to be monitored by internal and external governance. To a similar extent, Presley and Abbott (2013) and Ngo and Nguyen (2022) conclude that executive overconfidence is significantly related to financial restatements. The impact of management confidence on profit smoothing and earnings surprise was then studied by Bouwman (2014). Moreover, Bzeouich et al. (2024) describe that overconfident CEOs have behavioral biases and they have adverse effect on earnings quality. They uncovered a positive and statistically significant link between smoothing of earnings and inflated confidence levels among company executives. In reality, he demonstrated that optimistic managers had better predictable financial outcomes and fewer profit shocks than directors who were more pessimistic.

H2: Managerial optimism has a significant impact on earnings management.

Method

The present study evaluates the effects of accounting conservatism and CEO optimism on earnings management. We selected the top 20 listed manufacturing firms based on market capitalization in the country's leading stock exchange which gives a total sample of 200 manufacturing firms from 10 Asian emerging economies[1]. We have excluded firms with missing data of more than 3 consecutive years. Therefore, we reached the final sample of 114 listed manufacturing companies. Financial institutions are omitted from the study due to the wide range of practices in which accounts are handled. Non-financial manufacturing companies listed on the stock exchanges of respective countries from 2010 to 2022 are taken as simple of the study. The data was taken from the annual reports of these companies. The variables of concern in the study are accounting conservatism, CEO optimism and earnings management. However, board independence, board size, audit committee activity, audit committee size, leverage, firm size, tangibility, and profitability are firm level control variables. A variable description is given in Table 1.

Table 1
Measurement of variables

Variable	Abbr.	Measurement of Variables	References
Earnings Management	EM	Earnings management is measured with the discretionary accruals method calculated using the modified Jones (1991) model.	Hunjra et al. (2022) and Lara et al. (2020)
Accounting Conservatism	AC	Accruals are measured as (net income minus cash flows from operations) divided by the average total asset	Givoly & Hayn (2000) and Wibawa & Wardhani (2018)
CEO Optimism	CEO_O	A value of one if CEOs are rated as optimistic and a value of zero otherwise	Lin et al., (2005)
Board Size	BSZ	Total board members	Jabeen and Ali (2017) and Fariha et al., (2022)
Board Independence	BIND	Ratio of independent directors	Fariha et al., (2022)
Audit Committee Size	ACM	Audit committee members	Mawardi et al., (2022)

[1] China, India, Indonesia, Lebanon, Malaysia, Pakistan, Philippines, Thailand, Turkey and Vietnam

Audit Committee Activity	ACA	Audit committee meetings per year	Mawardi et al., (2022)
Firm Size	FS	FS is the natural logarithm of the average total assets	Hunjra et al., (2021)
Leverage	LEV	Debt to total assets ratio	Mehmood et al., (2019)
Profitability	ROA	Net income/Total assets	Mehmood et al., (2019)
Tangibility	TAN	Annual percentage in total assets	Lu-Andrews and Yu-Thompson (2015)

We employ the regression model for testing study hypotheses as follow.

$(EM)_{i,t} = \alpha_{i,t} + \beta_1(AC)_{i,t} + \beta_2(CEO\_O)_{i,t} + \beta_3(BSZ)_{i,t} + \beta_4(BIND)_{i,t} + \beta_5(ACM)_{i,t} + \beta_6(ACA)_{i,t}\ \beta_3(FS)_{i,t} + \beta_4(LEV)_{i,t} + \beta_5(ROA)_{i,t} + \beta_6(TAN)_{i,t} + \varepsilon_{i,t}$ ………………….…………………….(1)

Where EM is firm earnings management, CEO_O serves as a proxy for CEO optimism and AC is accounting conservatism. AC and CEO_O are independent variables. The control variables of the study include BSZ describing board size, BIND showing board independence, ACM is audit committee size, AQ indicating audit quality, FS representing firm size, LEV denoting leverage, ROA representing profitability and TAN denoting tangibility.

Our study utilizes discretionary accruals (DA) as an indicator of earning management. Estimation of DA is employed with the help of cross-sectional modified Jones (1991) model.

$$\frac{TAC_{it}}{TAS_{t-1}} = \alpha 0 + \alpha 1 \frac{1}{TAS_{t-1}} + \alpha 2 \frac{(\Delta REV_{it} - \Delta REC_{it})}{TAS_{t-1}} + \alpha 3 \frac{PPE_{it}}{TAS_{t-1}} + \varepsilon t \qquad (2)$$

In equation 2, TACit stands for total accruals in the year t (calculated as net income minus cash flow from operations); TAS*t-1* denotes total assets for the year t-1. REV *it* is the revenue difference between year's *t-1* and *t*, and REC*it* is the receivables difference between year's *t-1* and *t*. PPEit denotes property, plant, and equipment of a firm in a year; $\alpha 1$, $\alpha 2$ and $\alpha 3$ are approximated coefficients; $\alpha 0$ is the constant and ε is the error term. The coefficients are measured with the help of ordinary least squares. Moreover, non-discretionary accruals (NDAit) are determined by applying the following formula and putting the estimation method into equation 3:

$$\frac{NDA_{it}}{TAS_{t-1}} = \alpha 0 + \alpha 1 \frac{1}{TAS_{t-1}} + \alpha 2 \frac{(\Delta REV_{it} - \Delta REC_{it})}{TAS_{t-1}} + \alpha 3 \frac{PPE_{it}}{TAS_{t-1}} \qquad (3)$$

Then, we calculate DA (DAit) using the formula DAit = TACit - NDA it. The study employs the magnitude of DA to show proxy for EM, as suggested by Leuz et al. (2003). Table 1 lists descriptions of relevant variables.

We apply descriptive statistics to show the summary of the data, while correlation test to verify multicollinearity in the data. Panel regression method is utilized in the particular research to investigate the relationship between accounting conservatism, CEO optimism and earnings management. The main models of panel regression consist of fixed effect and random effect. As we get significant p-value from the Hausman test, we select fixed-effect model. Further we use the dynamic panel model to ensure the reliability of findings, while applying generalized method of moments (GMM) for analysis. González (2013) states that the GMM is utilized to deal with the autoregressive attributes of the dependent variable and the endogeneity related issues.

Results

Table 2 presents the results of descriptive statistics. The average value of earnings management is 11.634 with a standard deviation of 1.063 indicating that about 11 percent of firms in Asian emerging economies are engaged in earnings management practices. Accounting conservatism and CEO optimism have mean values of 0.110 and 0.543 suggesting that 11 % of sample firms follow accounting conservatism however, about half of the firms have overconfident CEOs. Also, the average values of the control variable show little variations in the data. It can be inferred from the facts presented in the aforementioned table that the data is normal, that the estimated variables do not exhibit any extreme values, and that the data follows a normal distribution. Furthermore, multicollinearity is assessed with variance inflation factor (VIF) in our study. The variance inflation factor (VIF) quantifies the degree to which multicollinearity has inflated a predicted coefficient. Measures how well each predictor variable in a model explains other explanatory variables. The acceptable values for VIF range between 1 to 5 (Nguyen et al., 2021), and some researchers suggest 1 to 10 as an acceptable range for VIF (Kim & Zhang, 2016). Considering that the values of the VIF are lower than 5, we can conclude that there is no need for concern regarding multicollinearity in the model.

Table 2

Statistical summary

Variables	Mean	Median	SD	Maximum	Minimum	VIF
EM	11.634	10.917	1.063	20.560	1.231	---
AC	0.110	0.091	0.607	-0.371	0.128	1.31
CEO_O	0.543	0.706	0.440	1	0	1.27
BSZ	7.539	6.938	0.810	15	6	1.35
BIND	0.183	0.1715	0.938	0.627	0.053	1.41
ACM	4.183	4.083	0.816	5	3	1.37
ACA	6.153	5.495	0.795	10	3	1.42
FS	10.48	10.03	0.304	14.202	6.029	1.82
LEV	0.235	0.243	0.133	0.435	0.067	1.69
ROA	8.742	7.924	1.051	16.623	2.048	1.01
TAN	7.029	6.582	1.365	11.254	2.820	1.56

Note: EM is earnings management which is the dependent variable, AC and CEO_O represent accounting conservatism and CEO optimism. BSZ, BIND, ACM, and ACA represent board size, board independence, audit committee size, and audit committee meetings, while FS, LEV, ROA and TAN denote firm size, leverage, profitability and tangibility.

Table 3 represents the level of correlation among explanatory variables of the study. However, the study results indicate that there is not a significant link between the independent variables, which ensures that there is not a problem of multicollinearity in our data.

Table 3

Correlation analysis

	EM	AC	CEO_O	BSZ	BIND	ACM	ACA	FS	LEV	ROA	TAN
EM	1										
AC	-0.084	1									
CEO_O	0.043	-0.081	1								
BSZ	-0.106	0.085	0.058	1							
BIND	-0.092	0.078	-0.183	0.063	1						
ACM	-0.159	0.145	0.072	-0.124	0.084	1					
ACA	-0.082	-0.216	-0.173	0.192	0.137	0.237	1				
FS	0.057	-0.018	0.021	0.077	0.142	0.071		1			
LEV	-0.021	0.051	0.049	-0.098	0.058	-0.084	0.082		1		
ROA	-0.071	0.102	0.024	0.142	-0.068	0.132	0.143	0.058	-0.073	1	
TAN	0.123	0.063	0.044	0.152	0.091	0.081	0.094	0.069	-0.082	0.086	1

Note: EM is earnings management which is the dependent variable, AC and CEO_O represent accounting conservatism and CEO optimism. BSZ, BIND, ACM, and ACA represent board size, board independence, audit committee size, and audit committee meetings, while FS, LEV, ROA and TAN denote firm size, leverage, profitability and tangibility.

It is possible to use the redundancy of the fixed effects likelihood test to determine which model the common effect or the fixed effect is preferable. The P-value serves as the criterion for inclusion in this study. The common effect model will be rejected if the likelihood test is substantial. The P-value is significant, hence the common effect hypothesis is ruled out in this case. As a way to help researchers choose between the two methods known as fixed effects and random effects, Hausman (1978) developed a test. This test shows us if the discrepancy between the fixed effect and random effect estimation methods is significant or not. According to the Hausman test, a fixed-effects model should be utilized to get consistent and efficient results.

Table 4

Results of Fixed Effect Estimation

Variables	Model I	Model II	Model III
AC	-1.247**	---	-1.319**
	(-2.163)		(-2.395)
CEO_O	---	1.075***	1.195***
		(3.967)	(4.686)
BSZ	-0.405***	-0.075**	-0.063***
	(-5.391)	(-2.424)	(-4.239)
BIND	-0.138**	-0.215*	-0.037**
	(-2.295)	(-1.763)	(-2.375)

ACM	-0.192**	-0.234*	-0.375*
	(-2.235)	(-1.835)	(-1.752)
ACA	-0.424*	-0.215*	-0.063**
	(-1.819)	(-1.717)	(-2.275)
FS	0.219***	0.439**	0.839***
	(4.638)	(2.536)	(3.163)
LEV	-1.385**	1.183**	-1.262**
	(2.035)	(2.162)	(2.075)
ROA	-0.089***	0.173***	-0.146**
	(-4.465)	(3.836)	(-2.063)
TAN	0.075***	0.008***	0.114***
	(4.263)	(3.533)	(3.235)
C	1.695**	-1.295**	-2.245***
	(2.422)	(-2.085)	(-3.053)
Country Fixed Effect	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes
R-squared	0.572	0.586	0.583
Adj. R-squared	0.566	0.562	0.547
F-statistic	12.578	10.231	11.514
Prob. (F-statistic)	0.000	0.000	0.000
Likelihood Test *(P-value)*	0.000	0.000	0.000
Hausman Test *(P-value)*	0.000	0.000	0.000

Note: EM is earnings management which is the dependent variable, AC and CEO_O represent accounting conservatism and CEO optimism. BSZ, BIND, ACM, and ACA represent board size, board independence, audit committee size, and audit committee meetings, while FS, LEV, ROA and TAN denote firm size, leverage, profitability and tangibility. The independent variable in Model I is accounting conservatism (AC) and in Model II, CEO optimism is the independent variable. However, Model III is estimated using both independent variables. * denotes $p<0.10$, ** denotes $p<0.05$ and *** represents $p<0.01$.

The results of the analysis reveal that accounting/conditional conservatism is negatively related to firms' earnings management. This can be understood because conservatism reduces incentives for earnings management by increasing the costs associated with doing so (Chen et al., 2007), and conditional conservatism limits managerial opportunities to inflate earnings by imposing stricter requirements for the recognition of good news (Gao, 2013). Further, the findings suggest a positive relationship between CEO optimism and earnings management. It suggests that a more confident CEO is more involved in earnings management. Schrand and Zechman (2012) concluded that executive overconfidence has an impact on the behaviour of financial reporting. They concluded that enhanced internal and external governance mechanisms do not ameliorate the effect of overconfidence in increasing the likelihood of financial statement fraud. Furthermore, Presley and Abbott (2013) discovered that CEO overconfidence is highly connected to financial restatements (Bouwmanl, 2014). Among corporate governance and audit characteristics variables, all have significant and negative effects on earnings management. It shows that board members fulfil their monitoring responsibilities to avoid any opportunistic behaviour which may also include earnings management (Epps & Ismail, 2009). Results relating to audit committee size and meetings are in line with the study of Bryce et al. (2015). Among other firm specific control variables, firm size and tangibility are significantly and positively related to earnings management. Leverage and ROA are negatively related to firm management aligned with the studies of Givoly and Hayn (2000) and Wibawa and Wardhani (2018).

Table 5
Robustness test

Variables	Model I	Model II	Model III
L1	0.049***	0.081***	0.316***
	(-3.312)	(3.485)	(-4.051)
L2	-0.412**	0.898***	-0.515***
	(2.392)	(3.411)	(-4.392)
AC	-1.284***	---	-1.415**
	(-3.031)		(-2.412)
CEO_O	---	1.015***	1.174***
		(3.833)	(3.595)
BSZ	**-0.052****	-0.175**	-0.073***
	(-2.431)	(-2.319)	(-4.639)
BIND	**-0.345***	-0.053*	-0.183**
	(-1.283)	(-1.722)	(-2.395)
ACM	**-0.535***	-0.034*	-0.395*
	(-1.718)	(-1.886)	(-1.821)
ACA	**-0.362***	-0.795*	-0.038**
	(-1.796)	(-1.834)	(-2.296)
FS	0.245***	0.415**	0.595***
	(3.305)	(2.395)	(3.015)

LEV	-1.441**	1.217*	-1.312**
	(-2.179)	(1.734)	(2.041)
ROA	-0.195***	0.146***	-0.168**
	(-3.063)	(3.794)	(-2.245)
TAN	0.087***	0.074***	0.114***
	(3.351)	(3.494)	(4.018)
C	1.295**	1.442***	1.458***
	(2.057)	(3.165)	(3.072)
Sargan (*P-value*)	5.675	8.735	7.695
	(0.147)	(0.117)	(0.138)
AR_1 *(P-value)*	0.032	0.021	0.031
AR_2 *(P-value)*	0.411	0.396	0.374
Country Fixed Effect	Yes	Yes	Yes
Firm Fixed Effect	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes

Note: EM is earnings management which is the dependent variable, AC and CEO_O represent accounting conservatism and CEO optimism. BSZ, BIND, ACM, and ACA represent board size, board independence, audit committee size, and audit committee meetings, while FS, LEV, ROA and TAN denote firm size, leverage, profitability and tangibility. The independent variable in Model I is accounting conservatism (AC) and in Model II, CEO optimism is the independent variable. However, Model III is estimated using both independent variables. * denotes p<0.10, ** denotes p<0.05 and *** represents p<0.01.

Results for robustness with dynamic panel estimates are described in Table 5. It is necessary to do the Sargan test to determine the authenticity of an instrument. Because the Sargan test results are so insignificant, the techniques used in this analysis can be verified. It is also possible to apply the Arellano–Bond test to verify the existence of autocorrelation. Further, Arellano–Bond first-order autocorrelation (AR1) is statistically significant, but AR2 is insignificant, implying that there is no autocorrelation. We find very similar results with GMM estimation as in our main hypothesis tests with fixed effect estimation.

Conclusion

The purpose of this analysis is to provide a clear indication that conditional conservatism has a detrimental impact on earnings management in an Asian context. The investigation is focused on the impact of accounting conservatism and CEO optimism on earnings management. The research concludes that accounting conservatism plays a crucial role in curbing earnings management in Asian emerging economies. The findings of our study indicate that conditional conservatism lowers the earnings management by the firms emphasizing the importance of conservative financial reporting practices. Meanwhile, CEO optimism emerges as a factor that can potentially increase the likelihood of earnings manipulation. The outcomes of the study suggest that firms with a high conditional conservatism are less likely to involve earnings manipulations as compared to firms not involved in conditional conservatism.

The research on the effect that accounting conservatism and management optimism on earnings management can indicate an incredible breakthrough in the comprehension of its significance of it for executives, managers and investors. Therefore, the findings of the study provides various policy implications. The outcomes of this research are advantageous for financial managers and accountants in that conservatism helps in arranging financing sources while investing. This finding is important because it shows that conservatism helps in limiting earnings management by firms. Policymakers can employ regulations to encourage the adoption of conservative accounting practices and standards. An effective approach to accomplish this objective is to enforce a requirement for firms to use conservative accounting practices in their financial reporting. Further, policymakers should give importance to improving the disclosure and transparency needs of financial statements. This further certifies that stakeholders are well aware of any conservative approach employed by the firms, which ultimately minimizes the chances of manipulation. Outcomes provide practical implications for regulators in a way that regulators may provide guidelines regarding conservative accounting rules. This in turn leads to standardize the implementation of conservatism in different firms.

Findings propose that practitioners may adopt conservative accounting methods and rules in their working. This contains precautions in recognition of revenues, valuation of assets, and estimating liabilities. By applying these practices, the likelihood of earning management may be reduces. Overconfident managers tend to exaggerate the benefits of their investments and underestimate the costs. We anticipate that overconfident CEOs would declare lower estimates for future losses, boosting present profitability. Our findings add to the expanding body of work on overconfidence and accounting policy by demonstrating a connection between managerial confidence and earnings manipulation. Positive impact of CEO optimism on earnings management suggests that regulators can consider

improving the disclosure standards on the assessment of CEO optimism and its effect on financial reporting. Further, regulators need to enhance their monitoring the firms where CEO optimism is an important issue. They can improve audit quality with more frequent assessment of financial reporting. Moreover, Practitioners and policymakers need to emphasize the moral issues related to managing earnings that arises due to CEO optimism.

Our study is a comprehensive analysis covering manufacturing sector of Asian emerging economies. However, certain aspects need to be focused in future. First, future research may enhance the dataset while taking sample from outside Asian emerging economies with focus of non-manufacturing firms. Second, future research may consider additional control variables such as corporate governance indicators, market competition intensity, and macroeconomic conditions, to refine the analysis and capture more nuanced effects. Third, in future, research could consider composite index or employ mixed methods to measure CEO optimism. These methods can include qualitative assessments, text analysis of communications, or behavioral measures. Fourth, quality of external audit can be taken as mediator or moderator in the same analysis is a good insight for future study. Lastly, the future research could conduct longitudinal studies to observe changes over time. Additionally, cross-sectional analysis can be interesting for future study while comparing different economic settings.

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Instrument Construction and Exploration of Students' Collaboration Skills Based on the Summated Rating Scale

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One of the essential 21st-century skills that students must possess is the ability to collaborate. However, profiling students' collaboration skills is challenging without valid and reliable instruments. Therefore, this research aims to map the profile of students' collaboration skills using valid and reliable instruments. This study is descriptive-explorative research with a quantitative approach. The research sample included 900 Islamic Senior High School/Madrasah Aliyah students, with 150 students participating in the instrument trials and 750 serving as the primary sample in this study. The results indicate that the collaboration ability instrument is valid and reliable, as demonstrated by a loading factor value > 0.5, T-Value > 1.96, RMSEA 0.00 < 0.08, RMR 0.043, Std. RMR 0.040, GFI 0.95, AGFI 0.87, NNFI 0.97, CFI 0.98, IFI 0.98, RFI 0.97, PNFI 0.85, and a composite reliability coefficient CR=0.909 from the second-order confirmatory factor analysis. The findings show that students' collaboration skills are moderate, with an average score of 26.4, which falls within the medium category. The distribution of students' abilities is as follows: 347 students (46.3%) are classified as having moderate abilities, 207 students (27.6%) as having high skills, and 196 students (26.1%) as having low skills. Based on these results, teachers and stakeholders are encouraged to enhance students' collaboration skills through student-centred learning approaches, such as project-based learning, which can provide students with opportunities to engage and practice working together actively in the learning process.

Keywords: 21st-century skills, collaboration skills, summated rating scale

The rapid development of technology has impacted life in the 21st century. Changes in the reality of life are inevitable. Education plays a crucial role in shaping individuals to meet the demands of the current era. Therefore, the education system must equip students with knowledge, character, and skills aligned with the 21st century. (Malik et al., 2023). Trilling and Fadel (2009) state that there are four essential skills that students must develop in the 21st century: critical thinking, collaboration, communication, and creativity. This aligns with the Project to strengthen the Pancasila student profile (P5) implemented in Indonesia. The values instilled in the Project to strengthen the Pancasila student profile (P5) include being faithful and devoted to God Almighty, having noble character, being globally diverse, working together, being independent, thinking critically, and being creative. (Maisyaroh et al., 2023; Septinaningrum et al., 2022; Wulandari et al., 2023).

In the era of globalisation, collaboration skills have become one of the key competencies students need to succeed in both the workplace and everyday life. 21st-century education emphasises the importance of collaboration skills, as modern work environments require individuals who can work independently and collaborate with others to achieve common goals. According to Greenstein (2012), collaboration is considered one of the essential life skills, encompassing the ability to communicate effectively, resolve conflicts, build consensus, and work in teams. Therefore, it is crucial to ensure that these skills are measured with valid and reliable instruments so that the development of collaboration skills can be both monitored and enhanced.

However, measuring collaboration skills is not straightforward. Unlike cognitive skills, which can be assessed through written tests or exams, collaboration involves social and dynamic interactions that are challenging to measure directly. Previous research has attempted to develop instruments to measure collaboration, such as performance assessments, observations, and self-assessment rubrics. (Meier et al., 2007; Rummel & Spada, 2005). However, the validity and reliability of these instruments remain subjects of debate. Many existing instruments only evaluate certain aspects of collaboration, such as communication or problem-solving, and often fail to capture the complexity of social interactions during collaborative processes.

Research conducted by Johnson and Johnson (1994) shows that effective collaboration involves five key elements: positive interdependence, individual accountability, promotive interaction, social skills, and group processes. Measuring these five elements comprehensively requires an instrument that captures qualitative data from student interactions and provides quantitative data that can be analysed to gain a more complete picture of collaboration skills.

To address these challenges, developing instruments specifically designed to measure collaboration skills holistically is essential. These instruments must evaluate various aspects of collaboration, including verbal and non-verbal interactions and complex group dynamics. Additionally, these instruments should be applicable across various educational contexts, including elementary, secondary, and higher education levels. A well-designed instrument will enable educators to identify the strengths and weaknesses in students' collaboration skills so that more targeted educational interventions can be implemented.

In addition, developing this collaboration measurement instrument must also consider various factors that influence collaboration. For instance, culture, gender, and educational background can impact how students collaborate. According to Hofstede (1986), culture affects how individuals interact within groups. For example, collaboration tends to occur more naturally in collectivist cultures due to the strong values of togetherness. In contrast, in individualist cultures, individuals may focus more on achieving personal goals rather than group objectives. Therefore, the instruments developed must be sensitive to these cultural differences to interpret the measurement results accurately.

The development of measurement instruments must also consider technological aspects, especially with the growing integration of technology in the learning process. Digital technology offers new tools to observe and measure collaboration. For example, online learning platforms and digital communication tools can enable more prosperous and detailed data collection on collaborative interactions. The data gathered through these technologies can include communication patterns, frequency of interactions, and responses to conflicts within groups. However, new challenges arise when integrating this data into instruments that educators can practically use in the field.

In addition, exploring students' collaboration skills should be conducted longitudinally to understand how these skills develop over time. Longitudinal research can provide insights into the factors that support or hinder the development of collaborative abilities. For example, it can address whether more frequent collaborative experiences lead to improved collaboration skills or if it is a critical period in the development of collaboration that requires intervention. By understanding the dynamics of collaborative skill development, the instruments developed can be adjusted to accommodate these changes, making the measurements more accurate and relevant.

Research results also show that effective collaboration contributes to improved learning outcomes. (Roschelle & Teasley, 1995; Slavin, 2014, 2015). In education, collaboration enhances the understanding of the subject matter and fosters critical thinking skills, problem-solving abilities, and essential social skills. However, collaboration's impact on learning outcomes depends on how it is measured and understood. Therefore, developing the right instrument is crucial to ensure that the effects of collaboration on learning outcomes are accurately identified and maximised.

Based on the issues outlined above, developing instruments and exploring students' collaboration skills is a crucial step toward improving the quality of education. With valid and reliable instruments, educators can better understand the dynamics of collaboration in learning and apply more effective strategies to enhance students' collaboration skills. Additionally, an in-depth exploration of these skills will provide richer insights into how they evolve and how educational interventions can be designed to support their development. Thus, this research will significantly contribute to educational literature and practice in the field.

Method

This research employs a descriptive-exploratory design with a quantitative approach. Its objective is to explore and describe students' collaboration skills. The study sample included 900 students: 150 students for instrument testing and 750 students as the primary sample, distributed across 7 Islamic Senior High Schools/Madrasah Aliyah in 6 regencies/cities within the Bangka Belitung Islands Province. Sample selection was conducted using multi-stage sampling techniques. (Ackoff, 1953). This sampling method was chosen based on practicality, effectiveness, and efficiency, (Taherdoost, 2016).

The research began with developing a collaboration skills instrument based on the summated rating scale, which includes indicators such as working effectively with and respecting team members, adapting well, being responsible, and contributing to the team. (Trilling & Fadel, 2009). The instrument consists of 21 items with five response options: Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. Respondents' answers were converted to z-scores. The validity of the instrument was assessed by five experts and analysed using the Aiken formula (Aiken, 1980, 1985). Empirical validity was evaluated through Confirmatory Factor Analysis and analysed with JASP software. An instrument item is considered valid if it has a loading factor greater than 0.5 (Azwar, 2016; Hair et al., 2010; Nurosis, 1986). Items with a loading factor less than 0.5 are deemed invalid. Reliability estimation was performed using composite reliability; a reliability coefficient close to 1 indicates that the instrument is reliable for measuring the construct, (Ramadhan et al., 2019; Vakili & Jahangiri, 2018).

Result and Discussion

The development of the instruments

The collaboration skills instrument was developed based on the indicators of collaboration skills proposed by Trilling and Fadel (2009). It was designed using a Likert scale with five response options. The instrument consists of 21 items that address the ability to work effectively, respect team members, adapt well, be responsible, and how one contributes to their team. The instrument grid is shown in Table 1.

Table 1

Collaboration Skills Instrument Framework

Indicator	Item	+/-
Work effectively and respect team members.	I respect the opinions expressed by group members.	+
	When making decisions, I consult with other group members to reach a consensus	+
	I accept decisions that have been agreed upon by the group.	+
	I reject decisions made by most group members.	-
	I would not say I like it when someone argues or disagrees with the ideas I propose	-
Adaptability	I do not choose my friends or group members.	+
	I am willing to work with friends or group members assigned by the teacher.	+
	I do not enjoy working with other people.	-
	I feel that my friends are unreliable.	-
	My group members are pleased with me	+
Responsibility	I am responsible for completing tasks by the agreed-upon deadline	+
	I prioritise group interests over personal interests.	+
	I am willing to undertake tasks determined through group discussion.	+
	Tasks assigned by the teacher are always completed on time	+
	I am dissatisfied with the group's decision to distribute tasks.	-
Contribute to the team	I participate in contributing ideas during discussions.	+
	I assist with group assignments given by the teacher.	+
	I provide feedback on ideas proposed by group members.	+
	I prefer to wait for the final results of group decisions rather than participating in discussions.	-
	I feel that group discussions only create problems	-
	I am involved in making decisions or reaching agreements in	+

Indicator	Item	+/-
	the group.	

Table 1 shows the specifications of the developed collaboration capability instruments. The total of 21 instruments consists of 13 positive and eight negative items, using a Likert scale with five response options: strongly agree, agree, undecided/neutral, disagree, and strongly disagree.

Results of content validity analysis

Five experts appraised the validity of the research instrument in measuring student collaboration skills. The results of the expert assessment were analysed using the Aiken formula (Aiken, 1985). The results of the expert assessment for the 21 items of the collaboration skills instrument are shown in Table 2.

Table 2
Expert Judgement Results

Item	Validator					S1	S2	S3	S4	S5	$\sum S$	Aiken index
	1	2	3	4	5							
1	4	4	4	4	4	3	3	3	3	3	15	1.00
2	4	4	4	4	4	3	3	3	3	3	15	1.00
3	4	4	4	4	4	3	3	3	3	3	15	1.00
4	4	4	4	4	4	3	3	3	3	3	15	1.00
5	4	4	4	3	4	3	3	3	2	3	14	0.93
6	4	4	4	4	4	3	3	3	3	3	15	1.00
7	4	4	4	4	4	3	3	3	3	3	15	1.00
8	4	4	4	4	4	3	3	3	3	3	15	1.00
9	4	4	3	4	4	3	3	2	3	3	14	0.93
10	4	4	4	4	4	3	3	3	3	3	15	1.00
11	4	4	4	4	4	3	3	3	3	3	15	1.00
12	4	4	4	4	4	3	3	3	3	3	15	1.00
13	4	4	4	4	4	3	3	3	3	3	15	1.00
14	4	4	3	4	4	3	3	2	3	3	14	0.93
15	4	4	4	4	4	3	3	3	3	3	15	1.00
16	4	4	4	3	4	3	3	3	2	3	14	0.93
17	4	4	3	4	4	3	3	2	3	3	14	0.93
18	4	4	3	4	4	3	3	2	3	3	14	0.93
19	4	4	4	4	4	3	3	3	3	3	15	1.00
20	4	4	4	4	4	3	3	3	3	3	15	1.00
21	4	4	3	4	4	3	3	2	3	3	14	0.93
Mean												**0.97**

Table 2 shows that the collaboration skills instrument has an Aiken V index ranging from 0.93 to 1.00. Of the 21 items, 67% have an Aiken V index of 1.00, while the remaining 33% have an index of 0.93. Based on the expert assessment results, it can be stated that the collaboration skills instrument developed is classified as valid. This is confirmed by Aiken (1985), who states an instrument can be declared valid if five experts appraise it and the item has an Aiken V index > 0.87.

Instrument Test Results

The collaboration skills instrument was tested on 150 Islamic Senior High School/Madrasah Aliyah students. The data obtained from this trial were used to determine the construct validity and reliability of the instrument. Construct validity was assessed using confirmatory factor analysis (CFA) with the JASP application. Before performing the CFA, the respondents' scores, originally in ordinal scale format, were converted to interval scale format using Z-scores based on the summated rating scale. The results of this conversion are presented in Table 3.

Table 3

Results of converting ordinal scale into interval scale

Z+	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0.6	0.9	0.9	0.5	0.8	0.6	0.7	0.7	0.5	0.5	0.8	0.7	0.6	0.5	0.8	0.6	0.7	0.9	0.8	0.9	0.9
U	0.9	1.4	1.5	0.9	1.3	1.2	1.2	1.4	1.3	0.9	1.3	1	1	1.3	1.5	0.8	1.2	1.5	1.2	1.4	1.5
A	1.3	1.9	2.1	1.5	2	1.8	1.9	2.3	2.2	1.6	1.9	1.5	1.6	2.1	2.3	1	1.7	2.1	1.7	1.9	2
SA	2.1	2.6	2.8	2.4	2.9	2.6	2.7	3.6	3.2	2.6	2.6	2.1	2.4	2.8	3.1	1.8	2.5	2.7	2.4	2.4	2.7

Based on Table 3, it is revealed that converting scores from an ordinal scale to an interval scale based on the summated rating scale affects the students' response scores. For instance, learners who initially scored 1 for item number 1 (A1), "Strongly Disagree (SD)", were converted to a score of 0, and students who responded "Agree (A)" to item 6 (B1), with an original score of 4, were converted to 1.8. This conversion process applies to all items up to item number 26. After all responses are converted to positive Z-scores, the resulting data is used to assess the validity and reliability of the construct through confirmatory factor analysis (CFA).

The results of the construct validity analysis, conducted using confirmatory factor analysis (CFA), are presented in Figure 1 and Table 4.
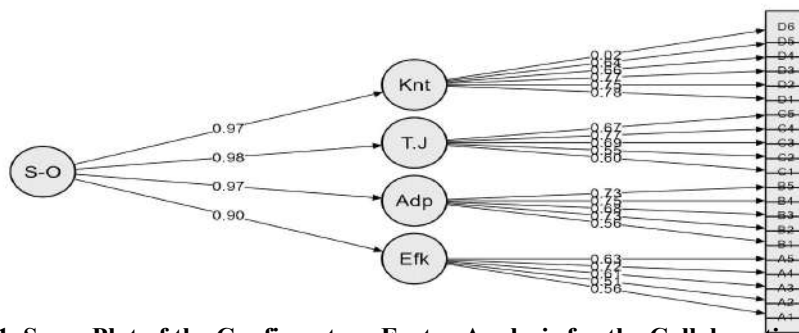

Figure 1. Scree Plot of the Confirmatory Factor Analysis for the Collaboration Skills Instrument

Table 4

Model Fit Criteria

Parameter	Value	Criteria	Conclusion
chi-square (χ^2)	0.775	$p > 0.05$	Fit
RMSEA	0.00	< 0.08	Fit
RMR	0.043	≤ 0.10	Fit
Std. RMR	0.040	≤ 0.10	Fit
GFI	0.95	≥ 0.90	Fit
AGFI	0.87	$0.80 \leq AGFI < 0.9$	Fit
NFI	0.90	≥ 0.90	Fit
NNFI	1	≥ 0.90	Fit
CFI	1	≥ 0.90	Fit
IFI	1	≥ 0.90	Fit
RFI	0.868	≥ 0.90	Fit
PNFI	0.77	>0	Fit

Figure 1 shows the scree plot for a collaboration skills instrument consisting of 21 items across four factors: working effectively and respecting team members, adapting well, being responsible, and contributing to the team (Trilling & Fadel, 2009). Based on Figure 1, it can be observed that the factor loadings range from 0.02 to 0.78. The factor loadings between the dimensions of collaboration skills and the four factors range from 0.90 to 0.98, with a P-value of 0.77 (p > 0.05) and an RMSEA value of 0.00 (RMSEA < 0.05). The results indicate that out of the 21 items, only one item is invalid due to its factor loading of 0.02; that is, item 21. According to Hair et al. (2010), a factor loading is considered acceptable if it is >0.5 and very good if it is >0.7. Thus, item 21 is excluded and cannot be used to measure students' collaboration skills, while the remaining 20 items are deemed suitable for assessing collaboration skills.

The criteria for confirmatory factor analysis (CFA) include parameters such as RMSEA, RMS, Standard RMR, GFI, and others (Gana & Guillaume Broc, 2019; Hair et al., 2010; Makmee, 2023; Murano et al., 2021). The criteria and results of the CFA analysis for the trial instrument are presented in Table 4. Table 4 indicates that all criteria or parameters, from chi-square (χ^2) to PNFI, for the instrument's collaboration capability have been met, demonstrating that the developed instrument model is valid and fits the model well. The instrument's reliability in this trial is assessed using Cronbach's Alpha and omega, as shown in Table 5.

Table 5
Reliability Results of the Collaboration Skills Instrument

Factor	Coefficient ω	Coefficient α
Work effectively and respect team members	0.752	0.740
Adaptability	0.820	0.817
Responsibility	0.793	0.792
Contribute to the team	0.795	0.753
Total	0.929	0.927
Second Order	0.909	-

Table 5 shows the reliability of each dimension measuring collaboration skills, with omega reliability coefficients ranging from 0.752 to 0.820 and an overall coefficient of 0.929. In comparison, Cronbach's alpha values range from 0.740 to 0.817, with an overall coefficient of 0.927. The reliability coefficient for the CFA second-order model construct of the collaboration capability instrument is 0.909. Based on the estimated reliability results from the trial, it can be concluded that the instrument is proven to be reliable, as it has a reliability coefficient greater than 0.70 (Bahar & Özgürbüz, 2022; Danni et al., 2021; Istiqlal et al., 2024; Shi et al., 2022).

Table 6
Description of Students' Collaboration Skills

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Work effectively and respect team members	750	.00	12.84	6.0125	.10952	2.99928
Adaptability	750	.00	14.77	8.5801	.12143	3.32528
Responsibility	750	.00	12.95	6.5770	.11817	3.23617
Contribute to the team	750	.00	11.87	5.2468	.12082	3.30888
Total	750	.74	49.42	26.4164	.41793	11.44548
Valid N (listwise)	750					

Based on Table 6, we can categorise the intervals for each dimension of collaboration skills using values and standard deviations based on the normal distribution. Students' collaboration skills are grouped into three categories: high, medium/moderate, and low, with intervals determined based on the normal distribution. The intervals for each category of collaboration skills in each dimension are presented in Table 7.

Table 7

Interval for Categorizing Participants' Collaboration Skills

Factor	Interval		
	High	**Medium**	**Low**
Work effectively and respect team members	$0.83 \leq x$	$3.8 \leq x < 8.3$	$x < 3.8$
Adaptability	$11 \leq x$	$6.1 \leq x < 11$	$x < 6.1$
Responsibility	$9 \leq x$	$4.2 \leq x < 9$	$x < 4.2$
Contribute to the team	$7.7 \leq x$	$2.8 \leq x < 7.7$	$x < 2.8$
Collaboration skills	$34.9 \leq x$	$17.83 \leq x < 34.99$	$x < 17.83$

Table 8
Distribution of Ability to Work Effectively and Respect Team Members

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Low	209	27.9	27.9	27.9
	Moderate	345	46.0	46.0	73.9
	High	196	26.1	26.1	100.0
	Total	750	100.0	100.0	

Table 8 shows the distribution of students' ability to work effectively and respect team members. Among the participants, 27.9% are categorised as low, 26.1% as high, and 46% as medium, with an overall average score of 6.01. Therefore, students' collaborative skills in working effectively and respecting team members fall into the moderate category. However, these results indicate that 27.9% of students require additional support as their collaborative skills are below average. Practical collaboration skills can be enhanced through project-based learning implementations (Cifrian et al., 2020; Hao et al., 2024). Systematic project work provides students with experiences that promote effective collaboration.

Table 9
Distribution of Students' Adaptability Skills

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Low	171	22.8	22.8	22.8
	Moderate	364	48.5	48.5	71.3
	High	215	28.7	28.7	100.0
	Total	750	100.0	100.0	

Table 9 shows that the distribution of students' abilities in the adaptability dimension is predominantly characterised by students with medium skills, totalling 364 individuals or 48.5%. The high category includes 215 individuals, or 28.7%, while the low category comprises 171 individuals or 22.8%. Based on these results, it can be concluded that students' collaboration skills in the adaptability dimension are classified as medium. This conclusion is supported by the average (mean) score in the adaptability dimension, which is 8.58, falling within the medium category range of $6.1 \leq x < 11$.

Furthermore, Table 9 reveals that 22.8% of students need improvement or training in their collaboration skills because their abilities are below the average of their peers. Students' adaptation skills can be enhanced through problem-based learning models, (Salim et al., 2023; Lin & Jiang, 2023). Inquiry-based learning emphasises exploration and investigation by the students themselves, encouraging them to ask questions, conduct experiments, find answers, and solve problems independently (Malik et al., 2023). Therefore, problem-based learning models are suitable for developing students' adaptation skills.

Table 10
Distribution of Students' Responsibility Skills

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Low	186	24.8	24.8	24.8
	Moderate	380	50.7	50.7	75.5
	High	184	24.5	24.5	100.0
	Total	750	100.0	100.0	

Table 10 shows that the distribution of students' responsibility skills is predominantly moderate, with 380 students, or 50.7%, falling into this category. In the high category, there are 184 students, or 24.5%, while 186 students, or 24.8%, are in the low category. Based on these results, it can be concluded that students' collaboration skills in the responsibility dimension are classified as moderate. This conclusion is also supported by the average (mean) score for the responsibility dimension, which is 5.24 and falls within the moderate range of $4.2 \leq x < 9.0$.

Students whose collaboration skills in the responsibility dimension fall below the average of their peers make up 24.8% of the group. This subset may benefit from targeted interventions to enhance their skills. One

approach that teachers can implement is Project-Based Learning (PjBL) (Cifrian et al., 2020). In this method, students are randomly grouped, and each group member is assigned specific responsibilities for working on or completing a given project, distributing tasks and responsibilities evenly among them.

Table 11
Distribution of Students' Contributions to Team Skills

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Low	228	30.4	30.4	30.4
	Moderate	308	41.1	41.1	71.5
	High	214	28.5	28.5	100.0
	Total	750	100.0	100.0	

Table 11 indicates that students' contributions to team skills are classified as moderate, with an average score of 5.24, placing it in the medium category. The table also shows the distribution of collaboration skills within the contribution dimension to the team, predominantly represented by students with moderate abilities—308 students or 41.1%. This is followed by 228 students, or 30.4%, in the low category, and 214 students, or 28.5%, in the high category.

Enhancing collaboration skills in the dimension of team contribution can be achieved by applying 21st-century learning models. In addition to project-based learning and problem-based learning, the discovery learning model can also be used. Discovery Learning is an educational approach where students are encouraged to discover new information or concepts through exploration and investigation independently (Aldalur & Perez, 2023; Belton, 2016; Nicol et al., 2023). This learning model can help students contribute to research or investigate topics provided by the teacher, allowing each group member to construct their knowledge and contribute effectively within the team.

Table 12
Distribution of Students' Collaboration Skills

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Low	196	26.1	26.1	26.1
	Moderate	347	46.3	46.3	72.4
	High	207	27.6	27.6	100.0
	Total	750	100.0	100.0	

Table 12 presents the students' collaboration skills after combining all dimensions. Overall, the students' collaboration skills are classified as moderate, as indicated by the average score of 26.4, which falls within the moderate category. The detailed distribution of collaboration skills among students in Islamic Senior High Schools (Madrasah Aliyah) in the Bangka Belitung Islands Province shows that 347 students (46.3%) are classified as moderately skilled, 207 students (27.6%) as highly skilled, and 196 students (26.1%) as having low skills.

Conclusion

Based on the research findings, it can be concluded that the instrument used to measure students' collaboration skills has been proven valid and reliable. This is supported by the following indicators: a loading factor > 0.5, T-value > 1.96, RMSEA 0.00 < 0.08, RMR 0.043 ≤ 0.10, Std. RMR 0.040 ≤ 0.10, GFI 0.95 ≥ 0.90, AGFI 0.87 ≥ 0.80, NFI 0.90 ≥ 0.90, NNFI 0.97 ≥ 0.90, CFI 0.98 ≥ 0.90, IFI 0.98 ≥ 0.90, RFI 0.97 ≥ 0.90, and a reliability coefficient of 0.909 for the second-order confirmatory factor analysis. The results also indicate that the overall collaboration skills of Islamic Senior High School/Madrasah Aliyah students in the Bangka Belitung Islands Province are categorised as moderate, as reflected by an average score (mean) of 26.4, which falls within the medium range. The detailed distribution shows that 347 students (46.3%) have moderate skills, 207 students (27.6%) have high skills, and 196 students (26.1%) have low skills. Based on these findings, teachers and stakeholders are encouraged to enhance students' collaboration skills through student-centred learning approaches, such as project-based learning, which provides students with opportunities to actively engage in learning and collaborate with peers in completing projects assigned by teachers.

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The International Legal Framework Governing the Protection of Cultural Heritage

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The study delves deeply into the historical contexts of the countries involved, examining how the idea of cultural heritage and its protection under international law has changed through the years and in various social, economic, and political climates. When preserving cultural assets under public international law, we also consider the humanitarian aspect of this phenomenon. The study examines whether people and groups limit a state's power to act beyond limitations imposed by other states and international organizations. This research further examines the role of international human rights laws in this setting, the preservation of the individual's connection to cultural products, and whether or not an individual becomes a significant player in international law. The study's findings provide conclusive evidence of the pivotal catalytic role that UNESCO and similar international organizations play in the worldwide preservation of cultural heritage. UNESCO is the principal venue for monitoring whether or not states are adhering to international protection principles. Whether or not UNESCO can be effective without ratification processes for cultural preservation has to be investigated more deeply. The study's findings indicate that protecting cultural assets involves a wide range of aspects, including the rights and responsibilities of governments and the rights of cultures. In addition, our research suggests that the ever-evolving international legal system can improve its framework, which is relevant to preserving cultural treasures.

Keywords: Cultural Heritage, Destruction, UNESCO, International Law

The level of cultural growth has always been a strong indicator of the works and progress that humanity has produced, both at the start of time and throughout its existence. The determination of succeeding generations to safeguard, conserve, uphold, and advance the cultural inheritance passed down from generation to generation is mainly responsible for the ever-increasing cultural trajectory (Vrdoljak, 2024). In addition, a methodical and organized strategy for appreciating cultural heritage began with the Renaissance, which spanned the 15th and 16th centuries (Eberhardt & Pospisil, 2022). During the late nineteenth and early twentieth centuries, particularly after the two world wars, there was a lot of systematic development and attention paid to the components of cultural heritage, the protection of cultural property, and the creation of international regulations governing cultural heritage, which caused significant losses (Spitra, 2020).

A report on the worldwide movement to establish norms for cultural heritage law follows. Our study offers a fresh perspective on cultural heritage law by cataloguing existing literature on the subject and presenting and analyzing the current international community's multilateral effort to protect cultural artifacts. In the second half of the twenty-first century, public international law has taken a more humane approach to protecting cultural resources globally. International human rights legislation has significantly impacted the criteria for cultural property to be legally protected (Ssenyonjo, 2017). In this new humanitarian order, people and the preservation of cultural heritage are interdependent. Individuals acquire rights and responsibilities concerning cultural heritage preservation in such a context since they are actors of international law (Rizzetto, 2023). Therefore, safeguarding cultural assets is a complex subject encompassing nations and people.

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Literature Review

Cultural heritage is the legacy of tangible items and intangible characteristics passed down from previous generations (Lenzerini, 2011). This heritage includes both tangible and intangible components. Protecting it is necessary in order to preserve the history, culture, and identity of individuals and communities all over the world. Treaties, agreements, and protocols are all part of the international legal framework for preserving cultural heritage (Posner, 2007). These documents aim to preserve these priceless assets from dangers such as armed conflict, looting, and natural catastrophes.

While researching this subject, the first question to be discussed is, "What is cultural heritage?" Continuing the previous description, cultural legacy may consist of physical and immaterial items, such as buildings, artworks, and historical sites. To put it into concrete terms, it is often known as cultural property. This phrase was first established by UNESCO in 1954 in the 1954 Hague Convention, a treaty for protecting cultural property during armed conflict.

According to the treaty, museums and archives that house such collections are also recognized as cultural properties (Tsinopoulou, 2017). Intangible cultural heritage items, such as food, folk customs, and language, are less clearly measurable but no less essential to a people's or community's cultural existence. Both visible and intangible forms of history are worthy of protection because of people's importance to them (Lenzerini, 2011). Interestingly, they measure the worth by how much it is missing or how much of a hit it takes when it has gone. They consider this kind of loss to be "ruinous for cultural identity," impacting not only the affected communities but also "humanity as a whole" (Bulow, 2020).

Theft and violence against cultural property have deep historical origins, but the subject only really came to the forefront of contemporary awareness after WWII. During that war, the Nazis pillaged public and private art collections, destroying much of Europe's built environment. Some parts of the international community were particularly shocked by the latter, the apparent disappearance of highly regarded European artifacts. In his analysis of the destruction in Florence, architectural historian Nicholas Adams says. The excellent monuments of Italy represent, for many of us, "a kind of cultural patria [patrimony], and so it is understandable that we feel damage to them as damage to us" (Adams, 1993). The 1954 Hague Convention emerged due to the widespread belief that the world's artistic and cultural heritage needed more protection, especially among Westerners (Niglio & Lee, 2021).

This "international legislation to preserve cultural artifacts in times of war is still challenging to enforce effectively"; however, Evans demonstrates that this is insufficient (Evans, 2011). The protagonists believe that destroying the area, which might be seen as an architectural cleaning, can eliminate the last representatives of a foreign civilization and the people who live there. Adams regards attacks on cultural property, particularly architecture, as a tool used by potential perpetrators of genocide. Adams also expresses concern about enforcing the existing legal system (Adams, 1993). Robert Bevan, who elaborates on the idea in his book-length investigation of the role of architectural ruin in the erasure of culture, shares Adams's opinion (Bevan, 2007). The destruction of physical cultural artifacts, according to Bevan, is a prelude to more extensive genocidal plans.

Politicians worldwide agree with Bevan that culture is essential to who we are as a species. The killing of people and "such acts of destruction" are "part of the same global strategy, which I call 'cultural cleansing,' intended to destroy identities, tear apart social fabrics, and fuel hatred," according to former UNESCO Director-General (Bokova, 2015). It is worth noting that Bokova views assaults on cultural property as endangering global peace and security in addition to individuals and people. Thus, she implored the world's governments to acknowledge the importance of heritage and the seriousness of its plight. She also demanded that the Security Council and the ICC assert their authority in the cultural sphere more vigorously.

The frequency and severity of culturally specific attacks have skyrocketed after 2001, particularly in the Middle East, but increasingly beyond and in their evaluation of the threats to the historic heritage of the Middle East and its Roman and Parthian archaeological monuments, Blair Fowlkes-Childs and Michael Seymour of the Metropolitan Museum said that some of these sites are now undergoing modern-day devastation as well (Fowlkes-Childs, & Seymour, 2019). The continuous military wars in Afghanistan, Iraq, Yemen, and Syria have been characterized by the widespread destruction, and in some cases, destruction, of significant architectural and sculptured landmarks. Unfortunately, this is often an unintended consequence of war, as was the situation with the Great Mosque of Aleppo in Syria, which was one of the worst victims of the civil war thus far. Sometimes, as with the Bamiyan Buddhas in Afghanistan, the destruction is intentional. Fundamentalist Islamists burned these old statues to the ground because they represented heresy, as the area had a pre-Islamic history. Among politically motivated

NSAs, they are part of a growing tendency to use culturally significant artifacts as proxies in their confrontations with the West (Barfield, 2022).

As "one of the larger transnational markets in illegal goods," the theft and trafficking of art pieces has grown in popularity among NSAs in recent years. Research suggests that the so-called Islamic State (ISIL) earns a substantial amount of money from the sale of stolen artifacts. This money provides the Islamist organization with the means to fund its terrorist attacks (Blannin, 2017). What has the global community done in response to these dangers to cultural artifacts?

Two further UNESCO treaties on the preservation of cultural assets were adopted in 1970 and 1972 after the 1954 Hague Convention. Nevertheless, as we will see in the next section, none of the three is perfect and can serve as a foundation for cultural heritage conservation. The repeated ineffectiveness of these legal mechanisms to prevent the destruction of cultural property has been voiced by several critics, including UNESCO (Van-der-Auwera, 2013). The participation of belligerent NSAs, who do not see themselves as being bound by the laws of battle established by international law, is one reason why armed conflicts have changed after WWII, according to (Kila, 2013). The UNESCO agreements are already outdated due to the shifting dynamics of modern warfare and the fact that they were drafted with conventional interstate conflicts and mutually agreed-upon rules of engagement in mind. Another obstacle to the agreements' efficacy is the provision for "military necessity," which allows for the justification of the unfortunate but essential destruction of buildings and monuments during "necessary" combat operations (Schmitt & Schmitt, 2012).

On the other hand, not all legal tools meant to combat cultural offenses are failing. In 2016, the first fruit of Bokova's call for the ICC to use its jurisdiction was the conviction of Ahmad Al Faqi Al Mahdi for supervising the destruction of cultural property in Timbuktu, Mali. Legal expert Patty Gerstenblith argues that instances like Al Mahdi's build legal precedents safeguarding cultural heritage for decades to come (Gerstenblith, 2016). Along with other legal scholars, she delves further into the past, to the 1990s, when the ICTY found many people guilty of cultural property crimes in the former Yugoslavia. The need to preserve cultural heritage has been firmly established in customary law, perhaps due to ICTY judgments, and is now widely accepted as a general normative premise (Vrdoljak, 2013). Weiss and Connelly go beyond the present methods of preventing cultural heritage destruction by considering how the problem could be framed within the international responsibility norm to protect (Weiss & Connelly, 2019). This norm urges states to acknowledge their three-part duty to "prevent, react, and rebuild" when confronted with mass atrocities.

Thus, according to the individual who first used the phrase, genocide might include more than just the systematic killing of innocent people. It could refer to a variety of actions taken against a people in an attempt to eradicate their culture and way of life that undermine their feeling of self-worth, security, and identity. According to Luck, Lemkin had planned for the Genocide Convention to have an item denouncing attacks on cultural heritage (Luck, 2020); however, the Convention was almost derailed due to political bickering over the inclusion of this article, and it was finally removed. However, Luck thinks that maybe now is the moment to reconsider cultural genocide and embrace it as a valid notion for legislation. He concedes that there are challenges, the most significant of which is that "cultural genocide has never been defined, accepted, or codified by the world's governments," which makes it harder to use the term as a framework to prevent and punish cultural crimes on a global scale (Luck, 2020). It might be added to this list that the death of people takes precedence over the damage of property in the public mind, making the former seem less critical. Cultural asset protection efforts are on the rise across the globe, and the notion that we have a moral duty to do so is gaining traction.

Following this introductory chapter, further chapters examine the development of these initiatives from the early 1900s to the present day, assessing the impact of various protective regimes on the worldwide response to this ongoing issue.

Method

The research approach employed for this study was theoretical, and it included analyzing the problem based on international legal documents, constitutional provisions, and other statutory instruments. The research was conducted using a qualitative method that did not rely on empirical evidence. This method comprised doing an exhaustive review of the relevant literature. Utilizing this methodology enabled the discovery of gaps in the existing body of knowledge, which were then addressed, producing new insights. Papers such as encyclopedic legal dictionaries, reports, rules, regulations, policies, academic publications, government gazettes, and various international and domestic instruments are examples of authoritative papers in academic libraries.

The remaining sections of the article are organized as follows. Cultural Heritage is defined in the Section 2. While Section 3, discusses the specifics of how cultural heritage is handled under international law in terms of protection and preservation, both during times of war and peace. Section 4 presents the analysis of the legal framework for protecting cultural heritage. The last section concludes the study.

Meaning of cultural heritage

Cultural heritage is the passed-down knowledge and artifacts from one generation to the next, with the goals of preserving, interpreting, and using them for the benefit of everyone. Cultural legacy is best seen as having three parts: The term "cultural heritage" encompasses three types of assets: physical, immaterial, and natural; (i) Cultural artifacts that can be moved from one location to another, such as paintings, sculptures, coins, manuscripts, etc.; (ii) Cultural artifacts that cannot be moved, such as monuments, archaeological sites, etc.; and (iii) Cultural artifacts that can be seen underwater, such as sunken ships, underwater cities, and ruins (Nilson & Thorell, 2018). What communities, organizations, and even individuals may identify as part of their cultural heritage are the intangible aspects, such as knowledge and skills, tools, crafts, and cultural sites linked to them. Intangible cultural heritage also includes representations, expressions, and activities. Specifically, intangible cultural heritage encompasses written and visual artifacts, social behaviors, rituals, celebrations, and knowledge and practices related to traditional crafts, the cosmos, and the environment (Qiu et al., 2022). Any physical and biological artifacts that serve as natural landmarks are considered part of the natural heritage. Geological and physiographic features and habitats for plant and animal species are also part of it. Lastly, it encompasses all beautifully scenic or scientifically significant natural landscapes worldwide (Gordon, 2018).

Cultural Heritage and the Application of International Law

During a conflict, the world community first became aware of the need to safeguard its cultural commodities and establish international rules. This awareness dates back to the middle of the seventeenth century. In 1666, Sweden became the first European nation to pass legislation concerning the conservation of its national monuments (Brown, 2011). This law was the first legislative regulation to be enacted in a European nation. When the 19th century comes to a close, most other European nations will have followed suit and enacted laws to safeguard their archaeological and historical legacy. This will have occurred by the end of the last century. As the first effort to impose laws during a time of war to preserve cultural products, the "Lieber Code" was created in the United States in 1863 (Lovett, 2019). This code was the foundation for the Brussels Declaration in 1874, the first international codification. As a result of the response of Great Britain, however, it was never accepted (Yadong, 2020).

Throughout history, the philosophy of war has often included destroying, selling, or stealing works of art and monuments. As a kind of retribution against those defeated, the victors were repeatedly compelled to commit theft and, in many cases, destroy symbols of national and cultural significance (Prott, 2009). The "Lieber Code" and the Declaration of Brussels served as the foundation for establishing the first formal agreements, known as the Hague Conventions of 1899 and 1907 (Dowdeswell, 2016). These conventions, which were established to protect cultural products, were established. The protection of cultural products was never guaranteed, even though those particular regulations were finally implemented. The harm done to the world's cultural legacy during the two world wars is unimaginable. Many historical monuments and cultural items were also lost, and temples and other historical structures were destroyed (Wangkeo, 2003). The fire that broke out at the library also destroyed many books and manuscripts that were housed there.

When the world community realized that the legal restrictions that were in place at the time were not enough for the preservation of cultural heritage, they began a concerted effort to develop a protection system that was more effective on both the national and international levels. There has been a steady proliferation of international organizations like UNESCO, which is responsible for promoting cultural understanding, scientific research, and education within the framework of the UN (Butler, 2019). In addition to serving as a regulatory body to foster international cooperation, the foundation's primary objective is to make it a worldwide laboratory for exchanging ideas. The "Convention for the Protection of Cultural Property in the Event of Armed Conflict" was signed at a conference organized by UNESCO in the Netherlands in April and May 1954. It was the first time a concerted attempt was made to save cultural assets in the years after the war. As a consequence of the fact that it did not address the problem of illegally exporting cultural assets that were removed during armed conflict, the First Protocol was added to the agreements (Abtahi, 2017). A source of contention arose because the topic of "return of cultural property" was not mentioned in the wording of the Convention (Esterling, 2023).

The argument was undermined because the Convention already contained articles on the protection of cultural goods during peacetime (Articles 3 and 7 of the Convention) and military occupation (Articles 5 of the

Convention), which meant that returning stolen goods would have to wait until hostilities ended, even though the Convention only addressed the protection of cultural goods during times of armed conflict (Upadhyay & Rathee, 2020).

Analyzing The Protection of Cultural Heritage During Armed Conflict: A Legal Framework

Protocols I and II of the Geneva Conventions of 1949 address preserving cultural heritage during armed conflict. These protocols were revised in 1977 to reflect the ever-changing norms that govern armed conflict environments (Frulli, 2011). Protocol II addresses military conflicts that do not include other nations, whereas Protocol I focuses on those that do. Regarding cultural aims and territories, it is essential to highlight that Article 53 of Protocol I bans the use of historical monuments, works of art, or places of worship as weapons or targets in conflicts, as well as the threat of using them in such a manner (Muscat, 2020). These places of worship and historical monuments are considered part of peoples' spiritual or cultural heritage. It is far stricter than the responsibilities of the Hague Convention and the 1907 Hague Regulations. However, it has the same fundamental idea of protection as Article 1 of the 1954 Hague Convention (Dsch, 1999). This plan will always succeed, regardless of the gravity of the military situation. Warring parties must be parties to the 1954 Hague Convention and Additional Protocol I to plead military necessity. The cultural commodities not addressed by Art.53 are also subject to Art.52, which deals with protecting civil objectives. As a result, urban areas should not be targeted for assaults or reprisals; such actions should only be carried out against specific military objectives. The substance of Art.85, which establishes the deliberate destruction of sacred or artistic sites as a war crime, is, last but not least, significant. This rule is only relaxed when a cultural artifact is either directly related to military goals or is used in some way by the military (Stone, 2022). International courts are therefore made accessible as a possible avenue of appeal in the event of a breach of Protocol. As previously stated, non-international armed conflicts are covered under Protocol II of the 1977 Geneva Conventions; Article 16 explicitly addresses cultural matters. It stresses once again that no one may utilize other people's cultural or spiritual assets, such as historic monuments, artworks, or houses of worship, to further their military objectives (Harrison, 2010). Isolated and intermittent violent incidents and other forms of internal discontent are outside the purview of this Protocol. However, internal conflicts have taken on an international dimension, and the application of the Protocol in these circumstances has been controversial.

The contested articles of the protocols above have established a particular legal framework. This framework determines an evaluation criterion for protecting goods that make up people's cultural and spiritual heritage and a typological criterion for protecting goods that demand special treatment for historical monuments, artworks, and houses of worship (Lundahl, Lindblad, 2018). In order to qualify for this protection, cultural artifacts must be strongly associated with the subjective judgment of individual nations.

While not all international conventions address the preservation of cultural assets during times of war, the United Nations General Assembly adopted the *"International Covenant on Economic, Social and Cultural Rights (CESCR) in 1966"* and other treaties with similar goals (Coomans, 2011). Cultural rights are integrally linked to human rights despite lacking direct cultural mention. After looting many cultural artifacts from conquered areas, efforts to curb the illicit international traffic of cultural commodities have expanded beyond the 1970 UNESCO Convention. The 1972 UNESCO Convention on the Protection of the World Cultural and Natural Heritage supplied a list of World Heritage sites in jeopardy. (Training). Armed conflicts, whether they have already begun or are about to begin, pose one of the biggest threats to cultural and natural heritage investments. The "Reconstruction of Monuments Damaged by War" Declaration of Dresden, which took place in 1982, is another critical international document in this vein (Icomos. 1982). It is essential to note the Second Additional Protocol to the Hague Convention, which was approved on March 26, 1999. Cultural artifacts were often damaged or destroyed due to non-international wars that could not be resolved. Accordingly, it was generally agreed that current rules should be followed even in disputes that do not include foreign actors; furthermore, in times of emergency, cultural property should be transferred (UNESCO, 2019). Consequently, a legal framework for preserving cultural assets during times of peace has been established to complement the existing framework that encompasses their protection during times of war (Abtahi, 2017).

Protecting Cultural Heritage During Peacetime: A Legal Framework

Cultural heritage preservation was a top priority for the world community, even during periods of peace, when the dangers were just as significant as they were during times of conflict. Even when the world is at peace, issues may emerge, such as deteriorating environmental conditions, climate change, the illicit trade of cultural products, and terrorist attacks.

Conventions aimed at protecting cultural assets globally were established after the establishment of UNESCO. Cultural protection was based on two UNESCO conventions: the "*International Convention on the Prohibition and Prevention of the Illicit Import, Export, and Transfer of Ownership of Cultural Property (1970)"* and the *"International UNESCO Convention on the Protection of the World Cultural and Natural Heritage (1972)"* (Jagielska-Burduk et al., 2021). Two other treaties, one on undersea heritage (signed in 2001) and the other on cultural diversity (signed in 2005), have recently been added to this framework on a similar footing with the 2003 Convention on the Protection of Intangible Cultural Heritage. This provides fresh ideas and a foundation for a more comprehensive and equitable understanding of humankind's cultural legacy.

Notable among them is the 2003 UNESCO Declaration, which all UNESCO Member States agreed upon without exception, condemning the deliberate destruction of cultural heritage. In addition, it is not a definitive legal instrument that binds nations internationally. The Member States reaffirm their commitment to fight against the deliberate destruction of cultural assets at all times, regardless of conflict, in this 2003 Declaration (Schmalenbach, 2016). Respect for customary international law, international treaties, and UNESCO guidelines is demanded of governments during times of conflict, as is the strong suggestion that states adhere to all international recommendations and agreements while at peace (Stone, 2022). Nevertheless, acknowledging the responsibility of both states and people about the loss of cultural heritage is a crucial aspect of this Declaration: Intentional destruction of cultural heritage is the duty of states. In contrast, criminal action involving cultural heritage is the responsibility of individuals (Vrdoljak, 2022). Every State must ensure that its internal norms of law align with international obligations by international law and states' participation in international transactions.

In particular, regulatory or legislative actions should be implemented to safeguard cultural heritage components, whether in their entirety or separately. As a result, defining cultural products legally is both a responsibility and a right of each State (Spitra, 2020). International treaties impose the duty, and cultural property inside its borders provides the right. Furthermore, every nation must take measures to protect its cultural assets from deterioration, and every State recognizes this as a fundamental concept. Additional responsibility includes protecting cultural variety, which provides for all cultures. Relevant resolutions passed by the United Nations General Assembly have brought this issue to the forefront because of its perceived importance (Rasche & Kell, 2010). There will be criminal and administrative consequences for states that do not uphold their international obligations to cultural heritage. The need to establish worldwide standards for preserving cultural assets during peace is readily ostensible. Even though much work has been done in this area, there is space for improvement since protecting cultural heritage is becoming more pressing, and new issues are cropping up (Nocca, 2017).

Cultural Heritage Management During Socio-Political Crisis
Currently, nations have challenges stemming from their varied and multifaceted cultural resources even as they display symptoms of or are plagued by social and political crises. In the worst-case scenario, a country's instability manifests as a civil war, threatening and destroying cultural assets. This is because when these nations shut their borders and isolate themselves, it becomes more challenging to communicate with state authorities about risk assessment and cultural heritage preservation (Nilson, Thorell, 2018). Additionally, international organizations are unable to lend their assistance to this cause. Cultural heritage preservation, however, may seem like a minor concern when people are talking about people's lives that are at risk (Rehman & Ishak, 2022).

Even members of the own people may be inclined to vandalize and plunder cultural artifacts during social and political unrest. Additionally, it should be mentioned that when a nation is experiencing a socio-political crisis, diplomatic or political measures cannot be used to safeguard its cultural legacy (Shehade, Fouseki, 2016). Subject to regional and national constraints, information sharing can only occur between specialists. One way to speed up the establishment of communication channels is to form a local network of specialists who can evaluate the worth of cultural assets.

Likewise, UNESCO and other foreign organizations may bypass civilian governments and instead work with local specialists to improve communication. When religiously motivated extremists target cultural assets, any political response would be counterproductive and raise the danger of assault even higher. However, local specialists would be better equipped to handle the situation, find the culprits, attempt solutions, and speed up rescuing cultural riches at risk of extinction (Wangkeo, 2003).

In order to effectively address challenges relating to cultural asset conservation, public knowledge is crucial. An alternative to administrative procedures that might help avoid and repair the issue is organizing social events by cultural heritage specialists (Muscat, 2020). This is because specialists in cultural heritage may plan public events to

increase awareness. As a result of their extensive training, education, and experience, they can also assess risks and provide suitable mitigation strategies quickly. Moreover, they can engage with international organizations and supply up-to-date information since they are either involved with them or understand how they operate.

Cultural resources are particularly vulnerable during social and political unrest caused by popular resistance to governments. The argument for protecting cultural heritage and the many dimensions and uses of this value are primarily unexplored. Cultural heritage conservation concerns take a back seat to political concerns due to the volatility of governments (Meskell et al., 2015). A common misunderstanding is that people may actively oppose governments by destroying cultural treasures. Furthermore, regimes see the structure of international organizations as untrustworthy, limiting the actions these groups may take during times of crisis. This is on top of the fact that national committees of these organizations are crippled by the instability that already exists. Political and social unrest in several African and Middle Eastern nations in the last several decades has devastated the cultural heritage of those nations (Halpern, 2015). Thus, it is logical to assume that every time such a crisis happens or is feared to happen, it endangers various resources of that nation's cultural legacy.

Conclusion

A new era in the worldwide framework for protecting cultural property within the bounds of public international law began in the second half of this century. Considering individuals and communities ensures that the protected characteristics are not just a passing fad. Even though it is constantly changing, public international law is devoted to the idea that governments should play a leading role in protecting cultural property inside their boundaries. One of its leading objectives is emphasizing the importance of people in the worldwide movement to preserve cultural artifacts. There are specific international responsibilities that governments still need to fulfill. International human rights legislation has developed and expanded Cultural artifact preservation laws.

The preservation of cultural artifacts and the well-being of individuals are interdependent in this new humanitarian order. When people take part in enforcing international law, they acquire both rights and responsibilities for preserving cultural artifacts. Human considerations in no way limit the power of states; instead, they impose new safeguarding duties stemming from humanitarian and human rights treaties. It is also important to note that regional agreements are developed due to member nations' actions at the regional level, particularly in Africa, the United Nations, and Europe. Conventions at the regional level that are in complete harmony with UNESCO's global protection requirements supplement the current cooperation among member states or govern certain elements that improve cultural asset conservation. UNESCO is the primary forum for evaluating whether or not member states conform to international protection standards and the primary processing mechanism for international protection standards. Regrettably, UNESCO has been referred to as a "giant with clay feet" owing to the lack of sanctions for cultural protection.

As established by international law, the complex issue of cultural heritage preservation affects states and people, who are both obligated and entitled to the protection of cultural assets. The challenge of cultural heritage preservation affects communities as well as individuals. The world has understood that countries, international organizations, and individuals working within them must work together to create a workable system to protect cultural assets. Although substantial obstacles exist in enforcement, illegal trafficking, and resolving emergent concerns, the international legal framework for preserving cultural assets is solid. To effectively protect cultural assets, it is necessary to maintain international collaboration, strengthen national legislation, and incorporate recently developed technology. Adapting to ever-changing dangers and ensuring the effective use of current legal instruments should be the primary focus of future efforts.

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Digital Uprising: Palestinian Activism in the Cyber Colonial Era

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This study investigated the evolution and effect of Palestinian digital activism within the setting of cyber colonialism, accentuating the extraordinary capability of digital platforms for political resistance. The ascent of digital media has introduced another time of for Palestinians, empowering them to conquer physical and political hindrances forced by the Israeli occupation. This examination dug into the essential utilization of social media and other internet-based platforms by Palestinians to document human rights abuses, mobilize global support, and challenge dominant narratives. It likewise inspected the double-edged nature of digital technologies, which act as devices for both empowerment and surveillance. Through happy examination, contextual investigations, and meetings with activists, the review features successes and challenges of Palestinian digital activism. The discoveries highlight the meaning of digital spaces in molding worldwide discernment and encouraging fortitude, while additionally uncovering the tireless dangers of restriction and cyber reconnaissance. The paper concluded with proposals for improving the adequacy of digital activism and recommended future examination bearings to additionally grasp its effect on the Palestinian struggle for self-determination.

Keywords: Palestinian digital activism, cyber colonialism, global solidarity, surveillance.

Overview of Palestinian Digital Activism

Digital media has been a whole different century of activism and colonialism in the Palestinian journey to freedom and self-assurance. Online platforms are used by this advanced development to enhance the Palestinian account, struggle deceptions, and assemble worldwide fortitude in extraordinary ways. Through key engagement with online entertainment, websites, and other digital platforms, Palestinians have been able to overcome geographical and political barriers put in place by Israeli occupation—an absolutely amazing testament to their pursuit of freedom and fairness. The cyber space has become a milestone in storytelling control, where Palestinians are now better placed to share their stories with the rest of the world, hence setting a new scene of political and social obstruction. Cyber colonialism, inside this milieu, is conceptualized as the usage of advanced innovations by Palestinians to challenge the occupation, report denials of basic freedoms, and develop worldwide fortitude. This type of obstruction not just offers a counter-story to winning talks yet additionally assumes an essential part in coordinating both virtual and actual fights that rise above the bounds of occupation and attack. At the same time, the peculiarity of cyber colonialism highlights the digital component of occupation, where surveillance, control, and oversight are employed to smother Palestinian voices on the web. The Israeli state's endeavors to control advanced spaces feature the squeezing struggle for digital power and the inherent right of Palestinians to control their account (Bailey, 2021).

These digital platforms have transformed Palestinian activism, characterized by new roles of obstruction, enabling the defense of social identity and promoting emotion that is universal in strength. These developments have dramatically expanded the reach of the Palestinian struggle to engage with an international audience, shifting the global narrative around their quest for freedom and self-determination. Digital activism, in effect, changes the fundamental role that information and communication technologies have played as tools for both activation and

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hindrance in the Palestinian context, marking an urgent change in the modalities of their perseverance through struggle.

Purpose and Objectives

Purpose

The current research tries to find out the role that digital activism has played in the struggle for freedom and justice by Palestinians, more so in the wake of cyber colonialism. The study also looks to provide details on how Palestinian activists use digital platforms to document human rights abuses, mobilize worldwide support, counter dominant narratives, by shedding light on Hasbara (a Hebrew term that means "explanation" or "public relations" in English). It refers to Israel's official efforts to communicate and promote its position, policies, and actions to the international community, particularly concerning the Israeli-Palestinian conflict and other regional issues Hasbara is a strategic communication approach to shaping public opinion and countering negative narratives about Israel. by understanding their inherent dangers, including surveillance and censorship (Alhossary et al., 2023).

Objectives

1-　A historical account of the evolution of Palestinian digital activism:
- Examine the transformation of Palestinian activism from traditional formats since the muscle of digital media
-_trace significant turning points and strategies which evolved from conventional resistance to digital forms.
2-　Various tactics & instruments of Palestinian digital activism:
-　A discussion on the platforms & tools which the activists used to diffuse and create campaigns in cyberspace.
-　Effectiveness assessment of different engaging techniques through hashtags, visual storytelling & personal stories.
3-　The role of digital activism in the Global Solidarity Movement:
-　Discuss ways through which technology-driven Activism on socio-political matters has made it possible for the International Solidarity with the Palestinian Cause to materialize.
-　Among such attempts, one would consider efforts like "TikTok Uprising" and SaveSheikhJarrah campaign, to mention a few.
4-　To acknowledge the risk of Palestinian online activists:
-Be aware of the perils that they stand exposed to, which are common in terms of their surveillance, hacking, and censorship.
-Unearth the role played by technology as an emancipator or restrictor.
5-　Suggest possible steps to increase effectiveness and safety of digital activism:
-　Propose improvements in security issues while also expanding on types used in social media context.
-　Make a suggestion on how to build global partnership and campaigns aimed at achieving digital freedom
6-　To direct future research: To identify future research directions:
-　Suggest areas for further study relating to digital activism and its impact on Palestinians'
-　struggle for sovereignty geared towards filling this knowledge gap.
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Statement of the research problem.

Technology has provided a major helpful contribution to freedom and rights of the Palestinian which introduced new features into the liberation struggle against oppression. But, there are several elements that protect this digitalisation, there are several risks that are present and they include; cyber colonialism, surveillance, and censorship that threatens the effectiveness and safety of the digital activist. On the one hand, it is possible to use digital means for coming together to cover the violations of human rights, advocacy of people's rights, as well as to challenge hegemonic discourses across the world. ; on the other hand, digital media represents rather serious risks and potentials for repressions and suppression by states as well as other actors.

Apparently, until now, there is no comprehensive study of new activism by Palestinians, their impacts, strategies, and challenges. After a careful search of the literature, the authors found out that, how digital activism has transformed the region, cross-regional and global solidarity, perception and policies have found little research attention. Therefore the grey area created by the two paradoxical facets of the digital platforms as both enablers and suppressors of political activism provide a hue that requires further study to ascertain the right approach to use in the fight against digital repression and the enhancement of political activism.

It is in this context that this study seeks to address the following gaps: Firstly, it can be mentioned that the field of research related to the specific subject of this study – Palestinian digital activism and it's role within the context of cyber colonialism – remains underexplored. Therefore, this study endeavours to provide a review of the possible prospects and challenges of digital activism with regards to providing several significant examples and outcomes of activists' interviews and, with the help of content analysis, case studies, and recommendations, the finest ways this strategy can further be optimized for the Palestinians struggle for independence, as well as suggesting further research based on this contribution towards the Palestinian resistance movement.

Significance of the Research

In this study, this transformation of the conventional forms of resistance enriches knowledge of digital activism regarding the Palestinian fight. It presents cyber colonialism explaining how the technological gadgets can be used to upgrade the activists' struggles as well as domesticate them through federal surveillance.

Thus, the "TikTok Uprising" and the #SaveSheikhJarrah embed knowledge regarding specific effective digital campaigns and appeal for international support to form perceptions for an effective campaign. The study provides the suggestions to improve the outcomes of the digital activism and protect the activist, which is useful for the activist and the policy maker.

Apart from the scholarly significance, the study highlights the need for more digital activism by the Palestinian people and recording acts of human rights violations, arguing for better digital rights. It positions Palestinian digital activism into the global struggle against oppression hence playing a part in the same struggle.
All in all, it increases the academic and practical knowledge about Palestinian digital activism and helps to give relevant conclusions and recommendation for further fight for justice and supporters' right to self-determination in Palestine.

Research Questions:
1. How has digital activism transformed the Palestinian struggle for freedom and justice?
2. What are the main strategies and tools used by Palestinian digital activists?
3. How do digital platforms facilitate global solidarity movements for the Palestinian cause?
4. What challenges and risks do Palestinian digital activists face, particularly concerning cyber colonialism?
5. How can the effectiveness and safety of digital activism be enhanced for the Palestinian cause?
- Significance of the Study and contributions to the field

Literature Review
Historical Context of Palestinian Activism

The historical trajectory of Palestinian activism and resistance is a testament to the enduring struggle for national identity, self-determination, and sovereignty in the face of settler colonialism and occupation. This section aims to trace the evolution of Palestinian activism from its traditional roots through significant political milestones to the contemporary era of digital activism (Tawil-souri et al., 2013).

The Palestinian resistance movement has its roots in the early 20th century, with the formation of various political and militant groups in response to British colonial rule and the subsequent Zionist movement aiming to establish a Jewish homeland in Palestine. Traditional forms of activism during this period included strikes, demonstrations, boycotts, and armed resistance, which were primarily localized and organized through grassroots networks and political factions. The 1948 Nakba (catastrophe), resulting in the establishment of the state of Israel and the displacement of hundreds of thousands of Palestinians, galvanized the resistance movement, embedding a deep-seated resolve for the right of return and national liberation within the Palestinian collective consciousness (Tawil-Souri & Aouragh, 2014).

The pervasive threats of cyber colonialism, including censorship, digital surveillance, and violations of digital rights, necessitate a robust response. Advocating for the protection of digital rights and freedom of expression is fundamental to ensuring that the digital realm remains a space for free and open discourse, where Palestinian voices can share their stories, struggles, and aspirations without fear of repression (Bishara, 2022).

Bishara (2022) highlights the signing of the Oslo Accords in 1993 marked a pivotal moment in the history of Palestinian activism. Apparently, a peace process pointed toward accomplishing a two-state solution, the agreements rather prompted further fracture of Palestinian domains and did essentially nothing to end the extension

of Israeli settlements. The agreements likewise brought about the making of the Palestinian Authority (PA), a semi-independent legislative body that would come to assume a questionable part in Palestinian governmental issues and activism.

The shift towards digital activism among Palestinians can be attributed to several key factors. First, the spread of the Internet and social media in the early twenty-first century opened up new ways of communicating, organizing, and disseminating information, less sensitive to the constraints of physical geography and Israeli military control. Second, the limitations and failures faced by traditional diplomatic and political channels, including the stagnation of the Oslo Accords and the violent repression of the Second Intifada, have prompted activists to seek other means of resistance capable of transcending the traditional restrictions and reach a wider audience. The emergence of a younger Palestinian generation, more tech-savvy and raised in the digital age, has also played a crucial role in the adoption and development of digital activism as a crucial part of the movement. resistance in the broad sense (Morozov, 2021).

Finally, Nijmeh (2024) explores the increasing use of digital surveillance, censorship and control tactics by Israeli authorities (Cyber Colonialism) and highlight the need for resistance strategies and innovative ideas capable of countering these efforts and regaining control of the narrative. Digital activism has emerged as a powerful tool in this regard, as it has enabled Palestinians to document human rights violations, coordinate popular mobilization, and strengthen the sense of national unity and identity despite physical fragmentation and policy imposed by the occupation.

Nature of Digital Activism

This sort of activism exploits the inborn limits of modernized developments to plan individuals, dissipate information rapidly, and coordinate exercises across colossal geographical distances, habitually transcending the limitations constrained by conventional media and state-controlled channels of correspondence (Iosifidis & Wheeler, 2015).

Fundamental to understanding digital activism are ideas, for example, the "organized open arena," a term promoted by Benkler (2007), are fundamental to grasping advanced activism. It alludes to a web-based discussion where individuals can meet up to discuss issues and sort out around causes without being confined by geographical nearness or unified media gatekeeping. By showing how digital technologies empower inexactly coordinated groups to design refined acts, Howard Rheingold's idea of "savvy crowds" features the aggregate keenness and versatile strategies of digital activists.

The theory put forward by Clay Shirky, referred to as "political power of social media," refers to how people now, more than ever, can mobilize, rise, and challenge power holders in ways previously unimaginable through the use of digital platforms. According to Shirky and others, social media has dramatically changed the meaning of political activism and civic engagement through reducing participation barriers by engendering more decentralized and participative forms of group activity. According to Suwana (2020), Digital activism has been a leading change in how Social Movements organize themselves and bond with their followers. It opens up the process of sharing information more inclusively and widely, hence making it more accessible for more people who could access and contribute to the cause, and allowing a wider range of voices to take part in the open discussion. The most significant contemporary global current events are the Arab Spring campaigns, which show how activism on the web could initiate huge social and political change. Digital platforms made it possible for activists to document and expose character and human rights abuses, much of the time in real-time. This capacity introduced an added level of accountability for perpetrators and heightened vigilance with the general populace and authorities.

The revolutionary power of digital resistance in the Palestinian struggle is indisputable. Not only did this open new horizons for the expression of Palestinian identity and preparation for global solidarity, but it also represented a massive test of narratives and practices of oppression (Levy, 2021).

Looking at the journey of Palestinian digital activism, it is clear that the struggle for self-determination and justice has been permanently influenced by the digital age. The continued commitment to digital spaces is an encouraging sign and proof of the inexhaustible will of the Palestinian people. As they continue to navigate the complexities of digital resistance, their efforts not only contribute to the Palestinian cause but also resonate within the larger tapestry of global movements striving for a just and equitable world (Fadel, 2022).

Kelsch (2022) refers to digital resistance in the Palestinian context as "the strategic use of online platforms, social media, and digital technologies to challenge Israeli occupation, document abuses, and mobilize global support for the Palestinian cause" (p.XX). This form of activism utilizes a variety of digital tools and platforms, including social media networks, blogs, online forums, and video-sharing platforms, to disseminate information, coordinate actions, and foster community among Palestinians both within the occupied territories and in the diaspora.

Examples of digital resistance abound. Activists employ social media to organize protests, share live footage of Israeli military raids or settler violence, and create viral campaigns that highlight the realities of occupation. Hashtags like #FreePalestine, #SaveSheikhJarrah, and #GazaUnderAttack serve not only as rallying cries but also as means to aggregate content and draw international attention to specific issues or events. Moreover, digital platforms provide a space for cultural expression and resistance, where artists, writers, and musicians can share works that celebrate Palestinian identity and resilience, often in the face of attempts to erase or marginalize Palestinian cultural narratives (Klajnowska, 2022).

Key historical milestones such as the 1948 Nakba and the Oslo Accords.

Before the signing of Oslo Accords, Israel stepped up its policy of annexation; the 'Israeli settler colony has led to the appropriation of all of historic Palestine and also, in the course of the last four and half decades the Israeli physical division of the Palestinian people in three parts as far as their relationship with Palestine is concerned – first, the Palestinians who are now known as the 'Israeli Arabs,' second the Palestinians in the occupied territories particularly in " (Shehadeh, 2023 p. 99) When the al-Aqsa/Second Intifada erupted in the autumn of 2000 after the complete collapse of the Oslo process, Palestinian lands were turned into "certain subdivisions of besieged ghettoes walled in and surrounded by Jewish colonial settlers and the Israeli army. "

Arab is defined thus by Massad (2006), "caged in and besieged by Jewish colonial settlers and the Israeli military" (Massad, 2006). However, due to the Palestinians experiencing societies they were consistently exposed to violence and displacement for over a century, they found ways on spatial and social domains to align their cause and cry for freedom.

Traditionally, the means of the assembly for strikes and uprisings against the occupation forces took place through several popular committees that would also be involved in leading the cooperation and communication with other committees and also keep records, logs and maps of the villages' closure and seizure, arrests and attacks, be informants with the media outlets and writers of the pamphlets to be distributed, graffiti writers and supporters for other villages and coordinators of actions (Norman, 2010) Yet, in early part of the 21st century, the arrival of Internet mechanism has revolutionized these methods to an elevated and transformed status in case of Palestine. The Internet has not only added knowledge and created opportunities for the local and global connection but it has become the producer and distributor of innovative forms of resistance in its diffusion. 5 Lori Allen has noted that during the Second Intifada, constraints asserted that territoriality necessitated constant improvisation. Since the apparent change of Israel's political strategy to Palestine recently from searching for conflict solving to conflict containment in the context of the growing apartheid regime, the adaptation of Palestinians to Meschowski's arbitrarily disordered space and spectacular devastation could constitute some middle ground between resignation and rebellion, which might germinate politically innovative politics (Allen, 2008).

Allen observes that the commonly repeated observation that "we are living an ongoing Nakba" was not just a figure of speech: Allen observes that the commonly repeated observation that "we are living an ongoing Nakba" was not just a figure of speech:

For instance, the intifada-montage scenes that were aired as ID between the news programs on television were the scenes from the first intifada (1987–93) and from 1948 (the Nakba) inserted into the scenes of the current intifada. There was a re-use of pictures from the first intifada within reports on the second one; similarly, newly martyred youngsters' posters were reused during the second intifada commemoration events. Thus, in the nonlinear, non-discursive practiced poetic mode of image creation an historical consciousness and a rhetorical argument is performed. (Allen, 2008, p. 467).

By the start of the Second Intifada in 2000, the oppression by Israel's military was rapidly escalating towards a new, even more strict rule in the Palestinian Occupied Territories through the described closure policies whereas

new means to regale the Palestinians were taken to even further isolate and fragment them, no matter if they are in the Diaspora, Gaza Strip, West Bank, East Jerusalem, or within a country that is generally recognized as their homeland Fraying the Palestinian national body today still remains one of the objectives of Zionism. Nevertheless, due to the progression of technologies, the Second Intifada in September 2000 marked a change in media and more prominently, the increase of protest in media that has significantly impacted the Palestinian collective memory, identity, and struggle. This historical consciousness was realized in the TV broadcasted murder of the Palestinian boy Muhammad al-Durra by the Israeli sniper during the first days of the intifada when the constant cruelty of the Israeli army became the sticker image of the Second Intifada. The kill of al-Durra, a little boy who was shot while he was hiding behind his father, was spread among all Arab channels one of the most notorious songs of the Second Intifada which is "al-Quds Hatirga' lina" (Jerusalem will return to us) sung by Egyptian pop singers and famous Arab actors in a stand up for Palestine (Massad, 2003)The new technologies and the new media, and the relative freedoms of expression, search, and connectivity they offered, that developed at that time permitted not only for stunning faster and novel ways of content distribution but also for the engendering of a new Palestinian consciousness, capable of configuring new modes of identity and belonging to their stolen territories; a consciousness that evolved virtually against Israel's nets.

Over the last 20 years the Internet has turned into an alternative and safer environment for Palestinians to chart their existence, identity, and resistance. Howard Rheingold, who researched on creating of 'virtual communities,' noted that the technologies of 'computer-mediated communications' are rapidly growing and developing because of their networking facilities that help people 'to construct their interpersonal relationships across the distances in space and time,' in order 'to fulfill their own, rather diverse, communication requirements'.."(Rheingold, 2000). It is with regards to these established spatial and temporal discontinuities generated by the innovations of recent technologies that the present study of the digital floating homeland as a potentially liberating site of resistance to colonialisms' domination and restrictions is aimed. Palestinians have conceived new media as a war front by slowly mapping out a Palestinian subject position that shall foster citizenship in the whole of Palestine irrespective of settler-colonial checks and balances, deracination politics, and forced makeover by consumerist Adam and commodity and scriptural regimes. The said Palestinian digital floating homeland derives its tenuous anchorage from a redrawing of the boundaries of the state of Israel and from the possibilities of the return which encompass a return not only to the conditions in Palestine before the colonization by European settlers. To sum up, Palestinians' digital floating homeland under the settler colonial regime of Israel is an idea of renewal. Palestine, while territorially and demographically dis/proportioned (the West Bank, the Gaza Strip, Jerusalem, and Israel), is in the virtual world dialogized as a home/land constructed by the Palestinian subjects with hybrid ontologies and epistemologies erasing the binaries of settler colonialism imposed by Zionist Israel.

Digital Surveillance and Cyber Colonialism

Digital surveillance reaches out beyond the monitoring of public social media posts to incorporate more obtrusive techniques like the hacking of private communications and the utilization of refined spyware. Such practices are essential for a more extensive procedure of cyber colonialism, where digital technologies are weaponized to broaden control over and smother the Palestinian population. This digital manifestation of occupation not just compromises the protection and security of Palestinian activists yet additionally has chilling effects on freedom of expression and the right to dissent (Kreitem, 2020).The danger of cyber colonialism is multi-layered, including surveillance and oversight as well as the manipulation of digital spaces to advance specific narratives while minimizing others (Koh et al., 2009) .

Palestinian digital activism develops in relation not only to regimes of digital control and surveillance but also to the overall threat of cyber-colonialism. These two deterrents hint at the dual nature of the digital infrastructure as levers of urgency and mechanisms of implementation and repression. In other words, the more Palestinian activists manage to navigate this seemingly complex terrain, the more mediated power and dexterity in using the digital for obstructive purposes will become inherently essential (Withers, 2021).

Describes the attempts made by the state of Israel in advancing its control over the true narrative of the Israeli-Palestinian conflict in cyberspace. These range from the censorship of Palestinian social media uprisings, the surveillance of the Palestinian activists in the cyberspace arena, and the breach of digital rights through the monitoring and interception of digital communications. All that includes measures serving to suppress dissent, preclude organization efforts by those resisting (Bevilacqua, 2022).

Researchers like Tawil-Souri and Aouragh (2014) examined the presence of cyber colonialism in relation to the Israeli-Palestinian conflict, where digital platforms and the web became experimental spaces. For example, trained Israeli professionals were represented to participate in active initiatives to examine Palestinian online activity, in-depth coverage of Palestinian content, and to disrupt digital campaigns that challenge the Israeli narrative or advance the Palestinian cause.

Cyber colonialism integrates an extent of methodologies used by states to screen, track, and inspect the online activism of individual and groups. Examining digital surveillance In the Palestinian setting, checking digital surveillance isn't just an issue of security interruption anyway a fundamental issue of safety and political limitation. Reports have highlighted the use of sophisticated spyware by Israeli authorities to hack into the mobile phones and computers of Palestinian activists, scholars, journalists, and human rights defenders, often leading to arrests and interrogations. Such practices underscore the dangers associated with digital activism and the necessity for enhanced cybersecurity measures to protect those involved in these activities.

The Impact of the Digital Age on Palestinian Activism

Digital stages have wound up basic in dodging the actual impediments constrained by the Israeli occupation, like the separation wall and checkpoints. High level media has also engaged in the documentation and spread of basic freedoms encroachment committed against Palestinians. This competes with the Israeli state's control over information and record, publicizing a counterstory to overall groups of onlookers. Besides that, their strengthened desire to investigate and intervene in Palestinian digital development further blurs the use of digital platforms for activists (Awwad & Toyama, 2024).

Global Solidarity Movements

Digital platforms have served to a great extent in viewing, thus making them instrumental in fostering a global solidarity movement with respect to the Palestinian struggle toward freedom and justice. Recently, activism on digital media aspects of geographical areas being bridged and various disparate groups coming together on common points is a phenomenon that forces one to take notice of the upswing in worldwide support for the Palestinian cause. The next section reflects on expanding the 'Palestinian cause' into global allies through digital activism, enmeshing it within a broader story of global resistance against oppression.

Digital platforms have participated in leveraging the Palestinian cause vis-à-vis their impact. Across social media, blogs, and online discussions, activists share personal stories, disseminate information, and mobilize support for Palestinian rights. It is digital media that has allowed for real-time documentation and exposure of abuses, after which a new level of accountability for the perpetrators came into being, raising public awareness globally.

A very good example of digital activism is the campaign by Palestinian women aimed at providing eSIM cards to Gazans in order to reduce reliance on Israeli telecommunication networks, ensuring better communication and security for Gazans. This campaign showed how digital activism could concentrate on a certain problem that Palestinians are going through and raise international support.

The Palestinian diaspora, in particular, has managed to echo the Palestinian cause within the digital space with the help of worldwide activists. Turning their geolocations into an advantage, these individuals and collectives have been able to use social media, among other Web-based tools, in sharing personal stories and disseminating facts about life in Palestine. Interventions by the diaspora have been very important in bridging the divide between Palestinians living under occupation and the international community by shedding light on authentic experiences from Palestine.

The impact of digital activism has gone far beyond increasing the reach of the Palestinian 'cause'; it has taken the very concept of a 'cause' beyond the partitions of a narrow framework and universalized it within the broader global narrative of resistance to oppression. Digital activists locate the Palestinian struggle within a broader framework of global resistance against oppression by reaching out to global movements and pointing out the similarities between various struggles for justice.

Dissecting digital engagement requires a nuanced understanding of the context in which online activism takes place. Scientists should consider the socio-political scene, levels of digital education and admission to innovation among various fractions of the Palestinian population and their global allies. Understanding the effects

of digital activism should also present the limits of online engagement. Factors such as digital separation, the potential for slacktivism, and the difficulties of interpreting online preparation as a disconnected activity require careful consideration.

Method

The investigation of digital activism, especially inside the nuanced setting of the Palestinian struggle, requests a cautious thought of techniques that can catch the complexities/intricacies/challenges? of online resistance, community building, and global solidarity. The systemic way to deal with such a review should explore the complexities of digital information, the moral contemplations of investigating weak populaces, and the insightful difficulties of deciphering digital commitment. This segment frames key strategic contemplations for scientists investigating digital activism in the Palestinian setting.

Sample Size

Determining an appropriate sample size for qualitative research like this involves considering the depth of analysis required, the variety of perspectives to be captured, and the practical constraints of data collection. For interviews with activists and content creators, a purposive sampling strategy could be used to select participants who represent a wide range of experiences and viewpoints. A sample of 20-40 interviews might provide sufficient depth and breadth of insights for thematic analysis (Islam & Aldaihani, 2022).

For content analysis (social media posts, videos, etc.) the example size would rely upon the volume of content accessible and the feasibility of analysis. A researcher could decide to break down two or three hundred to a couple thousand bits of digital substance, selecting items based on light of importance, popularity (e.g., views, shares), and variety of sources (Shutsko, 2020).

Since the target population is those subjects that have currently, have had or are directly involved in digital activism concerning the Palestinian issue, purposive sampling shall be used. Target population will be defined based on previous involvements in the management of digital campaigns or in the creation of the content that is used in the campaigns or as persons posted on the campaigns. Thus, such an approach of research enables the selection of participants who areProfiler of great expertize in the area of concern, in this case, the Digital activism strategies and its pros and cons, particularly those from Palestine. Thus, the goal of the study will involve activists, scholars, journalists, and an selected leaders of Palestinian communities as the collected data will be pertinent to the comprehension of the investigated topics. There are also other literature which has also supported different qualitative sampling methods, which also confirmed that this type is aware of the notion of people should be selected in a way that they can provide a thick meaning to the study (Rana et al., 2023).

Research Gaps

Although the setting and history parts of digital activism are examined, there is a need to further explore its substantive impact on changes in approach and changes in open vision, both within the Israeli-Palestinian conflict.
Similar examinations between Palestinian digital activism procedures and those used in other conflict zones can provide insight into the universals and specificities of digital activism developments, and provide examples of successful practices and difficulties to be resolved. Given the rapid evolution of digital advancements and platforms, longitudinal reviews should track the changing elements of digital activism over the long term, taking into account change strategies, platforms used and engagement designs. The mental and social impacts of engaging in digital activism, such as consequences on thriving lobbyists, attachment to the local area and personality formation, remain unexplored areas and deserve further examination.

Content Analysis

A mixed methods approach is often useful in the study of digital activism because it allows the analysis of quantitative data (e.g., social media metrics, network analysis) to be combined with qualitative insights (e.g. content analysis, interviews). This combination can provide a more comprehensive understanding of the impact, strategies and challenges of digital activism.

Qualitative methods such as thematic content analysis allow researchers to delve deeper into the stories, symbols and messages conveyed by digital content. This approach is crucial to understanding how digital platforms are used to express identity, resistance and solidarity.

The selection process should aim to cover a variety of instances of digital activity, ensuring a comprehensive understanding of the phenomenon. Possible case studies could include the "TikTok Uprising"(Abbas et al., 2022) where youthful Palestinians utilized the platform to share their lived experiences and obstruction; the #SaveSheikhJarrah campaign (Alimardani & Elswah, 2021), which focused global attention on restricted evictions in East Jerusalem; The digital response to the incomparable "March of Return", which features the use of online social media to record the status of demonstrations in Gaza(Abusalim, 2018).

Each case study was selected based on its importance to the Palestinian struggle, the role of digital platforms in activism efforts, and the availability of data for in-depth analysis of different cases.

Case Studies

TikTok uprising: This refers to a wave of digital activism that emerged on the TikTok platform, where young Palestinians began posting short videos showing the reality of life under occupation, incidents of violence perpetrated by settlers or soldiers, and acts of resistance and solidarity. The release of these videos helped attract a younger global audience, drawing attention to the Palestinian cause in innovative and impactful ways (Abbas et al., 2022).

Social media during the Sheikh Jarrah protests: The struggle against the forced eviction of Palestinian families in the Sheikh Jarrah neighborhood of East Jerusalem has attracted international attention largely thanks to social media. Activists and residents have taken to social media platforms like Twitter, Instagram, and Facebook to document protests, sharing their stories of displacement and calling for international support in this regard. The hashtag #SaveSheikhJarrah has become a global symbol against dispossession and settler colonialism (Kelsch, 2022).

Digital Reaction to Great March of Return: The Great March of Return, a procession of protests at the edge of Gaza and Israel, was widely recorded and circulated through social media. (Abusalim, 2018).

Probably one of the most important meanings in this reconceptualization is its capacity and potency to arouse and provoke global solidarity. It brings real aspects of the Palestinian experience into the global digital circuit, opening it to global engagement and support by crossing differently located barriers and creating complicity with a range of movements and networks struggling against similar foes. The shared digital space becomes a place of total disruption and common recognition in an act of interdependence of struggles for equality and fundamental freedoms all over the world (Shehadeh, 2023).

The Palestinian case offers critical insight into the power and limits of digital spaces as arenas of resistance and identity formation. It reflects on digital activism and challenging cyber colonialism. The matter at hand right here is one that raises vigilance on how digital technologies are being used to both control and oppress but, at the same time, having the potential to empower, connect, and liberate (Abdul-Dayyem, 2021).

Virtual Communities and Networks

Digital platforms created instrumental effects for developing a belonging and unity feeling amongst geographically dispersed Palestinians. The creation of virtual networks and organizations has allowed Palestinians, irrespective of their physical location, to draw in with each other, share encounters, and all in all partake in the social and political existence of their local area. These virtual spaces act as groups for discourse, fortitude, and common support, building up a common identity and obligation to the Palestinian cause (Selinger et al., 2023).

Online forums, social media groups, and digital campaigns work with the trading of data, coordination of activism, and festivity of Palestinian widespread developments, causing the global Palestinian diaspora to feel more associated. For the vast majority, these virtual organizations offer a space where they can communicate their identity uninhibitedly, investigate their legacy, and participate in conversations about their rights and future (Kelsch, 2022).

Data Collection

Each case requires broad exposure of digital content, including social media posts, recordings, blog passages, online news, and user comments. This information should reflect the scale of the digital activism campaign, the stories and messages conveyed, and the engagement of the crowd. Direct interviews with activists,

coordinators, and key members associated with campaigns to gain first-hand knowledge of the systems used, challenges faced, and observed effects of digital activism efforts.

Data collection of a different arrangement of stories from digital platforms, including individual stories shared on social media, statements in web logs or online chats, and multimedia content, e.g. recordings and digital works that convey the Palestinian experience and struggle. This collection should aim to address a large number of points of view and encounters within the Palestinian people group. News sources may also incorporate web-based reporting, commentary, and reporting that adds to the larger narrative scene of the Palestinian struggle in digital spaces.

Collect data from different sources that report examples of global courage towards the Palestinian cause, such as digital campaigns (#BoycottDivestSanctions, #FreePalestine), global fights coordinated via social media, viral substances that triggered global mindfulness and online platforms that serve as focal points (Fraser & Fraser, 2023).

Narrative Analysis:

The utilization of digital media for cultural preservation and social connection and digital narrating has turned into a useful asset for Palestinians to record their set of social experiences, culture, and narratives of resistance (Abu-Rub, 2020). Stories and digital narratives, in particular, have emerged as a powerful medium for Palestinians to convey their experiences of occupation, obstruction, displacement and trust. Individual accounts, oral histories and narrative activities shared online provide insight into the Palestinian condition, testing generalizations and misinterpretations supported by mainstream media (Kelsch, 2022).

Moreover, digital platforms have enabled the global dissemination of Palestinian writing, music, films and crafts, opening a window into the innovation and dynamism of Palestinian culture. Events such as virtual exhibitions, online film celebrations and digital libraries make social works open to the general public (Estefan, 2022).

Narrative analysis regarding digital activism, particularly in the context of the Palestinian struggle, offers an important avenue for studying how stories, individual recordings, and aggregate narratives shape development, impact distinctions, and drive engagement. This approach allows analysts to delve deeper into the richness of individual encounters and global narratives that emerge in digital spaces. This is how narrative inquiry could actually be directed and applied:

Start by recognizing essential elements of narratives present in the context of digital activism, such as themes of obstruction, personhood, dislocation, and the desire for opportunity and fairness. These components structure the premises of narrative inquiry, guiding the determination and evaluation of digital substance. Think about the narrative designs (e.g., direct, non-direct, thematic) and storytelling methods (e.g., visual storytelling, hashtag activism) used in digital activism campaigns, and how they connect with and activate the crowds (Nee & Santana, 2022).

Organizing narratives within the verifiable political and social framework of the Palestinian struggle, taking into account how current real events and real factors shape the core of these narratives and hold them together. This context is necessary to decipher the narratives in a way that recognizes the complexities of the Palestinian experience. Decipher the findings to understand the function of storytelling in digital activism and consider how stories build support, create empathy, and contribute to the global conversation on the Palestinian issue. Consider the impact of digital narratives in shaping popular evaluation and influencing systemic conversations regarding Palestine (Lindholm, 2021).

Interviews and Testimonies

Leading interviews and collecting testimonies are imperative procedures for developing an understanding of digital activism within the Palestinian struggleThese qualitative tools permit an immediate view into the experiences, motivations, and perceptions of those persons directly involved or affected by the digital activism efforts. A detailed approach toward incorporating interviews and testimonies into such analysis follows for Palestinian digital activism:

- Identify Key Participants
Identify influential activists, scholars, journalists, and citizens leading or engaged in digital activism.
Involving different regions and backgrounds will ensure a varied range of perspectives.
- Develop a Comprehensive Interview Guide:

Design a number of open-ended questions that would allow for digital activism in terms of motivations, challenges, and impacts to come out.

This may include such questions on personal experience, specific campaigns, and digital media.

- Conduct In-Depth Interviews:

- Plan interviews with selected participants, guaranteeing confidentiality and informed consent.

Mix up in-person, phone, and video interviews to accommodate different preferences and situations.

- Gather Testimonies and Personal Narratives:

- Obtain written and recorded testing from participants willing to share their stories.

- Storytell: Details of experience regarding digital activism work, the successes and challenges.

- Analyze Data for Key Themes:

- Transcribe interviews and testimonies for close scrutiny.

Identification will include recurrent themes and patterns of general motivation, common obstacles faced, and perceived effects of the branches of digital activism.

- Locate the Findings in the Broader Struggle:

Show how individual experiences are related to the bigger picture of the Palestinian struggle for freedom and justice.

-Exposing how digital activism serves as the nexus of other forms of resistance and advocacy.**-**

Share Insights and Recommendations:

- Summarize key findings in a document and share with stakeholders, including activists, policymakers, and scholars.

- Provide tips on how to be an effective and safe digital activist.

A developed study with organized interviews and testimonies will form a structured lure for qualitative insight into the dynamics of digital activism in Palestine.

Utilize purposive examining to choose interviewees and testimony providers who address an expansive range of encounters inside the Palestinian digital activism scene. This incorporates activists, content creators, local area pioneers, community leaders and individuals who have taken part in or been affected by digital campaigns (Hallås, 2023).

Think about variety concerning geographic area, orientation, age, and role in activism to guarantee a thorough comprehension of the development according to multiple points of view.

Foster a semi-structured interview guide with pen-ended questions that could go either way that permit participants to share their stories, experiences, and reflections on digital activism. The aide ought to be sufficiently adaptable to oblige the progression of discussion and investigate unforeseen roads that arise during interviews.

Analysis of Global Solidarity Movements through Digital Activism

Schneider (2021)analysis of global solidarity movements in support of the Palestinian cause through digital activism provides critical insights into the dynamics of transnational advocacy, network building, and the impact of digital platforms on mobilizing global support. This section of the review explores how digital activism transcends geographical boundaries, fostering a global community united in the pursuit of justice and human rights for Palestinians. Below is a detailed approach to conducting this analysis:

Strengthening Global Solidarity

The global solidarity movement for Palestine assumes a critical part in enhancing Palestinian voices and narratives, pushing for their freedoms, and preparing worldwide help against occupation and shamefulness. Reinforcing this movement requires an aggregate work to draw in with and support Palestinian-drove drives, campaigns, and associations. Thusly, partners and allies overall can add to a bound together and successful reaction to the treacheries looked by Palestinians, both inside the digital circle and then some (Abu-Ayyash, 2018).

- Building Transnational Networks:

- Examine how digital platforms facilitate the creation of networks that connect activists, organizations, and supporters across different countries.

- Assess the role of social media, online forums, and virtual events in strengthening these connections.

- Sharing Information and Resources:

- Investigate the methods used to disseminate information, such as sharing news, reports, and educational materials.

- Analyze the effectiveness of these strategies in raising awareness and fostering solidarity.

- Coordinating International Campaigns:

- Study the organization and execution of coordinated international campaigns and protests.
- Evaluate the impact of these campaigns on public opinion and policy changes.

Engagement and Advocacy

People and associations all over the planet are called upon to effectively draw in with the Palestinian cause, whether through instructive drives, cultural exchanges, or political advocacy. This commitment can take many structures, from partaking in digital campaigns and social media activism to supporting BDS (Boycott, Divestment, Sanctions) endeavors and calling for strategy changes at the public and worldwide levels. By bringing issues to light of the real factors of the Palestinian struggle and moving narratives that look to delegitimize their freedoms, the global community can assume a critical part in propelling the cause of equity and harmony, justice and peace (Shehadeh, 2023).

- **Mobilizing Supporters:**
- Analyze the strategies used to engage and mobilize supporters through digital platforms.
- Look into online petitions, fundraising efforts, and volunteer recruitment.
- Amplifying Voices:
  - Examine how digital activism amplifies the voices of Palestinians and their allies.
  - Assess the role of storytelling, personal testimonies, and multimedia content in advocacy efforts.
- Advocacy and Policy Influence:
  - Investigate the ways in which digital activism influences policy and advocacy work.
  - Study the interaction between digital campaigns and traditional lobbying efforts.

The following detailed analysis aims at providing the clear and concise understanding of how Digital activism help to promote the Global solidarity intention for Palestinian. By looking into the energy that has been invested on facets of constructing a network, communicating information, co-coordinating a campaign and advocating for the cause, this paper shall uncover understanding towards capabilities of digital platforms in the fight for justice and human rights.

In thinking about the case of digital activism in the Palestinian fight and the larger picture of Cyber Colonialism that was painted, our collective source of motivation, as it turns out, coincides. Supporting digital rights, fighting for the possibility of the people's enunciation, and promoting the Palestinian quest toward world-wide resistance for Palestine are ethical objectives in the same manner as they are fundamental strategies towards one Arab Palestinian mission. Together, we can help to shape the necessary change in online communities and solidarity movements to reveal the attempted hope and dignity of Palestinians and other struggling people in Palestine and the world over (Volgger, 2020).

Enumerate challenges observed in global solidarity solidarity which includes the digital restrictions that include censorship and suspension of accounts the tensions at the global level, and a display of counter movements that seek to thwart or even delegitimize efforts to support Palestinians. The following exemplary issues which are examined here are considering the measures that solidarity movements employed or devised these challenges: How the movements used new media platforms? How they popularized the counter narratives than the state or the corporation? The support that was provided for digital rights? (Kelsch, 2022).

Valuable for global solidarity:

Digital platforms have revolutionized the manner in which social and political developments draw in with international audiences, and the Palestinian cause is no exception. The appearance of digital activism has opened up new roads for global solidarity, extending the extent of the Palestinian struggle beyond its topographical confines and into the global consciousness (Yousef, 2022).

The bitter and grim struggle of a people of Palestine has found a place in already unreachable recesses of the earth via digital platforms. New Social media, online discussion, and digital content have given Palestinians an opportunity to tell their stories to the world directly leaving out biased media outlets that have recently attempted to fact check Palestinian stories (Tareh, 2020).

The openness of digital media has made it easier for people around the world to connect themselves to the Palestinian cause. From online courses and digital craft fairs to online petitions and fundraisers, digital platforms provide many ways for international supporters to learn, contribute, and advocate for Palestinian rights (Beer et al., 2021).

Digital activism has also led to collaboration between Palestinian activists and global justice actors, including those who advocate for indigenous rights, oppose prejudice, and oppose the government. Shared encounters of deprivation, discrimination and Colonialism have laid the foundation for shared courage and support (Baig, 2021).

Results and Discussion

Findings from Interviews and Testimonies

The document suggests several themes and insights that could be derived from interviews and testimonies of Palestinian activists engaged in digital activism:

Experiences and Motivations of Activists:

Activists have expressed a strong desire to utilize digital platforms to document human rights abuses and mobilize support.

Many are motivated by personal experiences of occupation and a commitment to justice and freedom for Palestinians.

- Strategies and Tools Used in Digital Activism:
  - Activists leverage social media platforms like Twitter, Facebook, and TikTok to share real-time updates and organize campaigns.
  - Hashtags such as #FreePalestine and #SaveSheikhJarrah have been pivotal in garnering international attention.

- Challenges Faced by Digital Activists:
  - Surveillance and cyber-attacks by Israeli authorities, including hacking and monitoring of digital communications.
- Censorship and removal of content by social media companies, mostly by being pressured by governmental authorities.
- The wearing down of emotional and psychological resilience due to relentless online harassment, coupled with threats of physical reprisals..

- Impact of Digital Activism:
More effective mobilisation of global support for the Palestinian cause
Effectively organised several international protests and solidarity movements
Growth in sense of community and collective identity amongst Palestinians both in the occupied territories and the Diaspora

Case studies on Digital Activism:
 The TikTok Uprising, younger Palestinians using TikTok to show their experiences and resistances.
It was the #SaveSheikhJarrah campaign that drew global attention to the forced evictions in East Jerusalem.
 Examples
- TikTok Intifada:
  - Young Palestinians turned to TikTok to document their daily life under occupation, their acts of resistance, and gain global audiences that sensitized younger generations.
- #SaveSheikhJarrah Campaign:
  - Social media has been documenting and protesting the case of forced evictions of Palestinian families in East Jerusalem, gaining huge international solidarity.

Broader Implications
- Integration into Global Movements:
Palestinian digital activism is perceived within the global process of struggle against oppression, hence drawing lines with other global justice and human rights struggles.

Resilience and Adaptation:
  - Facing exacting challenges, the Palestinian digital activists have shown their resilience and adaptability in methods and strategies by being able to always find new ways of voice amplification and fighting back against oppression.

These results bring into the foreground information already inferred that subsumes the major/giant role of digital activism in the Palestinian struggle, and give voice to many experiences at the forefront of this movement.

- Results of the Content Analysis

The content analysis pertains to the study of social media campaigns and digital content relevant to the Palestinian case of digital activism. More importantly, the following sections will draw attention to some of the main findings arising from the analysis of online platforms and case studies in detail, such as the "TikTok Uprising" and #SaveSheikhJarrah.

Analysis of Social Media Campaigns and Digital Content

- Scope and Reach:

Social media campaigns have increased the reach of the Palestinian cause many-fold, connecting activists and supporters across the globe.

Information sharing and mobilization have been done via various platforms such as Twitter, Facebook, Instagram, and TikTok.

- Key Themes:

- Human Rights Violations: Digital media often records cases of violation of human rights through military raids, settler violence, and instances of compelled evictions.

- Cultural Preservation: Activism can work on the digital media of saving Palestinian culture through the sharing of stories, music, art, traditional folklore, etc.

- Solidarity and Support: The content greatly insists on global solidarity, calling for international support and cooperation.

-Engagement Strategies:

- Hashtags: Effective use of #FreePalestine, #SaveSheikhJarrah, #GazaUnderAttack, etc., for content aggregation and to attract a global audience.

- Visual Storytelling: Photos, videos, and live streams offer compelling, up-close visuals on events happening on the ground.

- Personal Narratives: Share personal stories and testimonies that humanize the struggle, as they make these stories relatable and foster empathy and connection.

- Impact and Influence:

• Building Awareness: Social media campaigns have played their role in building awareness globally concerning the Palestinian struggle, shifting opinion, and sensitizing the media.

• Activating Action: Protests, fundraisers, and other advocacy activities representing many global actions have been activated through digital communication.

• Debunking Myths: In this marvelously cyber battle of wits, digital activists and champions of the movement have taken advantage of the digital platform to abate misinformation and prejudiced narratives with alternative views, facts, and information.

Case Studies

"TikTok Uprising"

- Description:

  - Known as the "TikTok Uprising," it refers to a wave of digital activism across the TikTok platform where young Palestinians shared short videos about life under occupation and acts of resistance.

Content and Themes: Everyday life under occupation—videos of daily struggles, scenes at checkpoints, interactions with military forces; acts of resistance, such as protests, graffiti, along with many other activities in resistance to the occupation; cultural expression through sharing Palestinian music, dance, traditions that resist and maintain culture, However, irrespective of technological advancements, different socio-cultural and religious narratives are built in a society on the basis of enculturation, that narratives are the fundamental elements to construct perspectives about different things (Shahzad et al., 2024).

- Impact:

• Global reach: This has drawn in a younger, global audience, increasing awareness amongst demographics less reached by traditional media.

• Viral campaigns: A number of videos went viral, reaping millions of views and scores of media coverage.

• Youth empowerment: It empowered young Palestinians to take part in the digital resistance by creating a sense of agency and community.

SaveSheikhJarrah Campaign
- Overview:
The Palestinian advocacy campaign #SaveSheikhJarrah focused on forced evictions of Palestinian families in Sheikh Jarrah, a neighborhood in East Jerusalem. Content and themes: documentation of evictions through videos and posts; scenes of police brutality and settler harassment; personal stories of residents living in Sheikh Jarrah, attesting to their plights and appealing for help.
Calls to global audiences for protest, petition signing, and pressure on governments to take interventions
Impact:
 International Attention: The campaign became the center of huge international attention with wide ranging media coverage and public discourse.
 Solidarity Protests: Inspired protests and solidarity actions in various countries showing the global resonance of the issue.
-Policy Influence: Contributed to the international pressure on the Israeli authorities through its demonstrations, thereby influencing the diplomatic discussions and statements of world leaders.

Summary

The results of the content analysis will therefore prove the effectiveness one can attain with digital activism in the context of Palestine. Facilitating the work on social media and digital platforms has permitted Palestinian activists to include more people, create awareness, and attract international-level support. Case studies on the "TikTok Uprising" and the #SaveSheikhJarrah campaign highlight how digital content can help compel international attention and action toward the question of Palestine, underlining clearly the role which digital activism is playing today in this continuous struggle for the rights and justice of Palestinians.

Discussion

Content Analysis Results

The research on social media campaigns and digital content related to Palestinian digital activism delivered a number of important revelations. Through social media campaigns, for example, the reach of the Palestinian cause expanded, able to connect a worldwide army of activists and supporters. Indeed, most of this work was done on Twitter, Facebook, Instagram, and TikTok—platforms used for the dissemination of information and the gathering of support.

Key themes recorded across digital content include human rights violations, cultural preservation, and calls for solidarity and support. Most of the digital content records human rights violations, such as military raids, settler violence, and forced evictions. Cultural preservation is one of the top themes recurrent in works of activists, whereby through digital media, activists have been sharing stories, music, art, and even traditions in the fight to promote and protect Palestinian culture. A further multiplication of such content appeals to global solidarity, calling for international support and cooperation.

Some of the key engagement strategies that activists deploy include effective hashtagging, visual storytelling, and personal narratives. Hashtags such as #FreePalestine, #SaveSheikhJarrah, and #GazaUnderAttack played a huge role in aggregating content and drawing international attention. b) Visual storytelling: Photos, videos, and live streams provide compelling and immediate visuals of events on the ground. c) Personal narratives: The stories shared through testimonies and stories humanize the struggle, creating empathy and a connection with the global audience.

The impact of those digital efforts is profound. Digital campaigns raised awareness, affecting world opinion and media coverage of the Palestinian struggle. These digital content creation efforts further mobilized protests, fundraisers, and advocacy efforts all around the world, therefore proving that online activism matters in terms of real-world action. Digital platforms have further been used to counteract misinformation and biased narratives by providing alternative perspectives and fact-checking information.

From the "TikTok Uprising" to the #SaveSheikhJarrah campaign, case studies have shown online activism to be very effective. The "TikTok Uprising" refers to the wave of digital activism that has happened on TikTok, particularly young Palestinians who started posting short videos showing their lives under occupation and resistance scenes. This movement drew in people far younger and from all parts of the world, entertaining awareness about the issue in demographics not very well involved with the more traditional means of media. Some

of these videos went viral, gaining millions of views, and were covered by large sections of the media, hereby letting young Palestinians take on the digital resistance.

Palestinian families in Sheikh Jarrah, a neighborhood in East Jerusalem, were literally forced out in the #SaveSheikhJarrah campaign. Videos and posts exposing the eviction procedure, showingpolice violence and settler harassment, gained huge international attention. It is in this regard that personal stories of residents in Sheikh Jarrah—telling their struggles and calling for help—have been of central importance to the campaign. The campaign has encouraged protests and solidarity actions in many different countries, which added international pressure on the Israeli authorities and helped shift diplomatic debate.

Findings

These findings have serious ramifications for how we construe a Palestinian struggle and global solidarity. Digital activism has brought the Palestinian condition to the world's attention and ignited a global solidarity movement. The reach that digital campaigns have had manages to tie together diverse groups around the world into a unified front in support of Palestinian rights. Digital activism challenges dominant narratives through personal stories and firsthand accounts on the nature of the conflict.

The role of digital activism in shaping public opinion and policy is huge. According to jewel-ton, the extent of digital content that goes far and wide, captured public opinion with awareness and created empathy towards the 'cause' of Palestine. Digital campaigns help organize pressure on governments and international bodies to take action, making way for policy discussions and sometimes earning diplomatic interventions. In addition, digital activism functions as an informational tool that engages the global audience about knowledge of the contours of the Palestinian past and present.

Challenges and Opportunities

This presents equally important challenges and opportunities for Palestinian digital activists: Digital platforms empower Palestinians to document abuses, mobilize support, and network with allies. However, at the same time, these very platforms are subjects to surveillance, censorship, and manipulation by state actors, creating a phenomenal risk for the activists.

There are various ways that can be employed to fight digitized repression and improve the effort in activism. Activists must fortify their cybersecurity to ensure that they are safeguarded against surveillance and cyber-attacks. The adoption of numerous digital platforms may, in turn, limit the real efficiency of any act of censorship and erasure. Active efforts must unfold in terms of building alliances and seeking collaborations with global digital rights organizations that advocate for the protection of digital activism. On the other hand, continuous innovation is a must to secure the development of the new tools and strategies in response to this changing digital environment and to develop countermeasures to such repression.

These are dynamics that understanding would allow Palestinian digital activists to better navigate the challenges and leverage opportunities of digital platforms for justice and freedom causes.

Recommendations and Conclusion

The findings and analysis brought forth a number of recommendations on effectiveness and safety enhancement in digital activism in the context of Palestine, together with concluding reflections on the impact that digital activism has in the Palestinian struggle.

Recommendations

1. Increased cyber-resilience measures:

Full-fledged cyber-security measures must be taken to help Palestinian digital activists evade surveillance, cyber-attacks, and other kinds of digital repression. This would include encryption tools, secure channels of communication, and periodic trainings in cyber security to the activists to help safeguard their digital actions.

2. Digital Platform Diversification:

This, consequently, implies that dependence on numerous digital platforms will diffuse the risk of censorship or pulling down content. Social media, blogs, and other digital spaces should be used by activists to report a message or campaigns to diffuse the attacks against one avenue. Specifically: 3. Building International Alliances:

This can be supplemented with the formation of alliances by Palestinian activists with global digital rights organizations and advocacy groups. These types of alliances are crucial in advocating and fighting for protection for the preservation of digital rights, creating global awareness, and obtaining legal and technical aid for activists who suffer repression.

4. Continued Innovation and Adaptation:

Innovative Palestinian Digital Activism is to stop at nothing and move forward with updating its strategies to be relevant to fast-changing digital trends. This includes new technologies for safe info sharing, blockchain, and VR or AR for much more immersive storytelling, raising awareness globally.

5. Digital Rights Advocacy:

Digital rights advocacy henceforth becomes a necessity to protect this digital space of free and open discourse. The need is thus to campaign and campaign relentlessly at international standards and regulations in shielding activists from digital surveillance, censorship, and other forms of digital repression.

6. To Strengthen Global Solidarity Movements:

Critical to the strengthening of global solidarity movements is the coordination and cooperation that enhances efforts between Palestinian activists and their international allies. This can be done by building joint campaigns, sharing resources and important information, and engaging in global actions that demonstrate a focus on the Palestinian cause.

Conclusion

Digital activism has been an effective tool in the Palestinian struggle for freedom and justice, extending its reach way beyond their current resources to effectively conduct successful communication of their cause. Through these digital platforms, Palestinian activists succeeded in documenting human rights abuses, creating global mobilization, and challenging the dominant narratives that brought about a sense of international fraternity.

The "TikTok Uprising" case studies and the #SaveSheikhJarrah campaign demonstrate the power of digital activism in bringing about international attention that will materially affect action. The campaigns illustrate how digital activism crosses frontiers, bridges different constituencies, influences public opinion, and affects policy.

The duality in nature of these digital platforms poses opportunities and challenges. While digital platforms empower activists, they also expose them to risks of surveillance and censorship. It is incumbent to build robust cybersecurity measures, diversify digital platforms, build international alliances, and mobilize for digital rights.

The fact that the commitment continues is a reflection of the strengths and flexibility of the Palestinian activism, as it maneuvers through the labyrinth of digital resistance in efforts for the cause of Palestine, finding a vivid resonation within the larger tapestry of global movements oriented toward justice and equity.

To summarize, digital activism remains a vital component of the Palestinian struggle for self-determination and justice. By leveraging the power of digital platforms, Palestinian activists can continue to amplify their voices, mobilize global support, and drive meaningful change. Future research should focus on exploring new technologies and strategies to further enhance the effectiveness and safety of digital activism, ensuring that it remains a powerful force for positive change in the ongoing struggle for Palestinian rights.

Future directions and concluding remarks

Kharroub (2023)concludes that digital activism continues to play an urgent role in the Palestinian struggle for freedom and self-determination, and that it is vital to distinguish future directions and techniques to overcome difficulties and enhance its effect. The development of digital innovation, as well as the changing political environment, present two open doors and two obstacles for Palestinian digital activists. Supporting techniques are proposed to explore these subtleties and increase the viability of digital activism in the Palestinian context.

Investigating and tackling emerging technologies can open new avenues for digital activism. Blockchain innovation, for example, could be used to create decentralized platforms for sharing information and garnering support, reducing the risk of surveillance and obstruction. Likewise, virtual reality (VR) and expanded reality (AR) offer imaginative ways to present the true drivers of the Palestinian struggle to a global crowd, creating vivid encounters that can encourage greater understanding and compassion (Yan et al., 2024).

1. Building International Alliances

2. Cultivating Digital Resilience
3. Enhancing Narrative Control
4. Advocating for Digital Rights

Challenges and Opportunities

The reception accorded to the digital activism disrupting Palestinian activist comes with both a key opportunity and a test. If the digital world avails creative ways of preparing, controlling narratives, and preserving culture, it also harbors a new dimension of risks and challenges: digital restriction and identification, not to mention the wider ramifications of Cyber Colonialism..

The Double-Edged Sword of Digital Activism

Digital activism enables Palestinians to bypass customary media guards, associate with global audiences, and direction activities across scattered networks communities. It has democratized information dissemination, enabling grassroots narratives and counter-narratives to the Israeli occupation to reach a worldwide audience. However, this accessibility and visibility come at a cost (Mahlouly, 2023).

Censorship represents one of the most pressing challenges for digital activism. Social media companies, operating under the authority of their home countries and pressure from various governments, are often involved in removing content deemed politically sensitive or controversial (Abed et al., 2012). Palestinian activists frequently report content being removed and accounts suspended due to unevenly enforced policies, which can significantly hamper their ability to communicate and organize (Abokhodair et al., 2024).Digital platforms have made it possible to contextualize the Palestinian struggle within the broader framework of developing global justice and fundamental freedoms. By bringing together different struggles and emphasizing widely held norms of freedom, correspondence, and justice, digital activism has built the possibility that the fight for Palestinian rights can be important to a deeper struggle against oppression in all its structures(Welchman et al., 2021).

Saıd (2020) recognizes that digital platforms have broadened the reach of the Palestinian struggle, engaging international audiences and mobilizing support on a large scale. This global organization of courage is not only a testament to the power of digital media in preparing support, but it is also an urgent figure supporting the Palestinian struggle for justice and self-determination.

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Patriarchy, Power and Prostitution in Lahore's Red Light District:
A Feminist Study of Fouzia Saeed's *Taboo*

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In her 2002 book *Taboo: The Hidden Culture of Red Light Area*, Fouzia Saeed explains how patriarchal norms in Pakistani society rigidly categorise women into 'pure' and 'polluted', shaping perceptions of prostitution and human trafficking. This article argues that patriarchy has its roots in materiality, and plays an indispensable role in pushing many women into the dreadful practice of prostitution or trafficking for sexual slavery through the structural and institutional flaws threaded within Pakistani culture. Women in Pakistan yet also have internalised the deep-rooted patriarchal ideologies and sexism that lead to a holistic understanding of what this patriarchal culture entails. Focusing on *Heera Mandi* – Lahore's traditional red light district as depicted in Saeed's ethnographic book, this textual cum descriptive analysis contributes to unveil the dilemmas of women engaged in prostitution who are constantly under threat from patriarchy and other institutions. While unfolding men formulated cultural norms through radical feminist analysis of *Taboo*, this article concludes that the patriarchal metamorphosing of women into valueless commodities perpetuates the practice of prostitution and trafficking in *Heera Mandi*. The study also suggests that, to eliminate female inferiority, feminist activism in Pakistan requires measures to restructure patriarchy together with consciousness-raising and political education of women in all respects.

Keywords: feminism, gender hierarchy, heera mandi, prostitution, patriarchy

Medieval courts in the Mughal Empire were renowned for dancing, music and singing activities to entertain the elite. The artists were used to live outside the royal court, the premises known as *Shahi Mohalla* ((Royal Neighbourhood). *Shahi Mohalla* was given the name of *Heera Mandi* during the de-facto rule of Heera Singh Dogra who established grain market there. However, during colonial period, the grain market was relocated to Akbari and Delhi gate, and *Heera Mandi* was turned into a flesh market (Mahmood, 2023). The venue for cultural activities, including melodious singing and dancing thus was transformed into a sex industry or prostitution hub, exploiting the vulnerability of women.

The present research examines the role of patriarchy and state institutions to study the women engaged in prostitution in Fouzia Saeed's ethnographic book, *Taboo: The Hidden Culture of Red Light Area* (2002). It investigates women's conditions in Lahore's traditional red light district, where patriarchy prevents women from exercising their basic rights to health care, education, and employment options, and forcing them instead to work endlessly in the commercial sex industry in order to make money. They are also subjected to the worst physical and financial exploitation at the hands of state institutions. This study also looks at how mainstream women have absorbed male ideologies and unknowingly put them into practice in their daily lives in *Taboo*. Set in *Heera Mandi* (Diamond Market), a distinct area of the Walled City of Lahore, Pakistan which is also referred to as *Shahi Mohalla*, or the red light area of Lahore, *Taboo* exposes that all the characters are forced to continue exchange of sex for earning money what radical feminists call irrational and forced sex, thereby, as used by Catharine MacKinnon, the term 'women engaged in prostitution' (MacKinnon, 2007, P. 51) have been used preferably in the article. Instead of presenting a linear depiction of women engaged in prostitution, the article considers their various kinds like trafficked women, call girls, singers, slave girls, and dancers working in *Heera Mandi* as subjects of its study to analyse their plight in Pakistani patriarchal society as depicted in *Taboo*.

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The article informs through multiple voices from *Heera Mandi* that women in Pakistani patriarchal society are taken as carriers of culture, tradition, and most importantly the honour of families. This is why, in the process of identity formation of a family, men have complete control over women's sexuality. The notion of 'pure' and 'polluted', and 'good' or 'bad' is also embedded in the roots of patriarchal culture, by virtue of which the character of a woman is evaluated. Likewise, the dichotomy between 'virtuous' and 'evil' women further marginalises women engaged in prostitution in *Heera Mandi*, where along with traditional prostitution, the emerging bourgeois and male-centered public arenas bring vulnerable women of mainstream society into the emerging trends of commercial sexual services (Saeed, 2002).

Men from mainstream society who visit women engaged in prostitution often tell them that they are not to marry, but rather as free women, their role is to entertain men (Saeed 2002, p. 310). They are also told about their specific place in *Shahi Mohalla,* an alienated place, thereby highlighting that women of this particular place are commodities for providing erotic favours to men. Along with the concepts of supporting theorists – Andrea Dworkin, Sheila Jeffreys and Cynthia Enloe, the article considers Catharine MacKinnon's ideas as the main lens for the textual analysis of Saeed's book.

Delving into the context, by the end of the nineteenth century during British colonial period in India, tawaifs were equated to whores, and the word itself was no more in use. Instead, the word prostitute came into fashion, so that courtesans' culture and their associated powers were rubbed out (Kidwai, 2004). Similarly, Oldenburg found that in colonial times, the official policy was to choose pretty prostitutes from salons who then were transferred to cantonments for the sexual use of European soldiers (Oldenburg, 1990). Hence, not only was their profession dehumanised, but these women also suffered venereal infections. They were subjected to regular medical examinations and even quarantined in 'lock hospitals' (Ghosh, 1994). Especially the Cantonment Act of 1864 made prostitutes subject to strict clinical examination and detention of women carrying an infection, whereas the 1869 Act prescribed moral instructions, religious preaching and personal hygiene (Bell, 1994). Adding to the scholarship of Oldenburg, it is also noticed that not only did these colonial powers bring about a transformation to this sexual practice, but a rather prominent class who was denied attending royal social gatherings also revolted to destabilise the older structure of prostitution (Gupta, 2001). Undeniably, once uprooted from their roots they are still fighting to recollect their art and revitalise their culture (Kidwai, 2004).

In Pakistan, prostitution is not only illegal but taboo and practiced only clandestinely. Saeed's *Taboo* shows an undeniable link between traditional patriarchal structure, and socio-economic disparity among women engaged in prostitution. These women of the *Heera Mandi* have a family tradition of being engaged in this activity for centuries. They are called *Kanjar* in Pakistan (Saeed, 2002), an epithet for a clan with a traditional role of prostitution for generations. In the past, they were associated with the Mughal courts and aristocracy in North India, and their practice made Lucknow a cultural centre by preserving high culture.

Fouzia Saeed as a social scientist and activist is well-reputed for her works on women's issues in Pakistan. She exposes the social insincerity and politics of morality, when men act as agents and pimps, work for and with these women whom they consider bad or immoral, while the mainstream women as good (Saeed, 2006). *Taboo* covers the complete culture of *Heera Mandi* as Saeed meticulously records the conventions of the particular *Kanjar* clan of the place and gets to know that the girls associate with dancing under the guardianship of a mentor and attend *mujra* —A kind of variety show usually performed in villages in a combination of sitcoms, dance and singing.

Saeed proclaims that before partition, it was the role of the Hindu Nationalist Movement to segregate courtesans and prostitutes while considering sex as ignominious. The idea has been embedded in human minds so deeply that no one talks about prostitutes' exploitation and their rights (Saeed, 2002). The patriarchal setup further victimises women by snatching the right to education, in that way leaving them illiterate, unemployed and poor. In such stressed circumstances, they are more prone to the practice of prostitution in Pakistan.

Saeed also states that sexual relations between adults based on consent were not unlawful before 1979 in Pakistan. However, prostitutes, under General Zia's regime in Pakistan (1978-1988) were evicted from brothels under Islamisation moves, but prostitutes were neither given any rehabilitation support nor any alternative opportunity for survival. By putting their traditional work areas under threat, the practice was dispersed in several areas in Lahore, Pakistan. Furthermore, in Pakistan, women engaged in prostitution are deprived of the rights given by their families, and getting any rights from the state is a difficult job. Hence, they live a despondent life, most often at the mercy of those men who drag them there and become their pimps afterwards.

Taboo exposes the gender power relations where women are always weaker, whether they are from mainstream society or engaged in prostitution. When the girls in *Heera Mandi* reach puberty, their families search for a wealthy customer for what they call *Nath Utrwai* (Taking off the nose ring) or *shadi* (marriage) (Saeed, 2002). The practice of putting off the nose ring is called selling or deflowering virginity, for which men of the family negotiate the price with the client. In this way, the article scrutinises the plight of such women engaged in prostitution in a 'double fold' patriarchal setup — patriarchy from mainstream society and patriarchal control within the prostitution system. Moreover, *Taboo* also exposes the working of state institutions – police and politics in Pakistan by directly negotiating with women engaged in prostitution, exploiting them for getting bribery and manipulating them for sexual favours, therefore making clear how patriarchy exerts power in succeeding the practice of prostitution.

Since no optimal work in the literary field is carried out in this dimension in Pakistan, and the book *Taboo*, though with significant subject matter, has not given attention in past studies, therefore, this article contributes to understanding and unveiling the mysteries of prostitution, always under the threat from patriarchy and other institutions, yet at their mercy to survive, as this is how patriarchy works with paradoxical standards. On one side, patriarchy considers these women engaged in prostitution depraved and wants to eliminate the practice; on the other hand, they want the institution of prostitution to grow so that they can attain sexual services with no trouble. Moreover, while patriarchy has remained a subject of discussion in sociological studies in Pakistan, discussing it in the context of prostitution is quite novel. Secondly, how even mainstream women are made to comply with male-designed ideologies and strategies has also never been part of research studies. Hence, these two aspects make this work an innovative contribution to the field of existing knowledge.

Research Objectives

- To investigate the roles played by patriarchy and state institutions in rendering women vulnerable and driving them into the sex industry in *Taboo: The Hidden Culture of the Red Light Area.*
- To highlight women's submission to patriarchal ideologies rationalised in the mainstream society of Pakistan.

Research Questions

1. How do the patriarchy and state institutions force women into the practice of prostitution in Fouzia Saeed's ethnographic book, *Taboo: The Hidden Culture of Red Light Area?*
2. In what ways does Fouzia Saeed's ethnographic book illustrate women's subservience to male ideologies in the mainstream world in a patriarchal Pakistan?

Literature Review

At present, no substantial theoretical analysis is available on *Taboo*, and the criticism available on Saeed's work is constrained to a review only (Zubair, 2019). Though the terminology and diction used by Zubair are not as powerful as the aspects which Saeed has covered during her long visits to *Heera Mandi*, this is a no-go area, especially for women who are sound on moral grounds. Hassan notices, while discussing the culture of the place with these people, Saeed pinpoints the decline in this culture in the contemporary period as compared to fifteenth and sixteenth-century Mughal Emperors and Nawabs. People of the *Heera Mandi* lament that it was a golden time for them to alleviate their poverty, helplessness and miseries. Zubair highlights Saeed's claim that her book is about reducing the social dishonour which is associated with these women.

Prostitution as a degraded practice, carried out on and in women's bodies directly, can in no way be considered nonviolent and safe, since the pain, unwanted pregnancy, the transmission of infection, and scratches are incontrovertible realities (Sullivan, 2005). Radical feminists have been criticised for their exposing the practice as a mandatory part of patriarchal cultures, and that politics survives on the ideologies shaped by patriarchy and support this unhealthy practice. Smith attacks this view of radical feminists by labeling it a conservative, monolithic, and stagnant approach since it ignores other various kinds of relationships between women and patriarchy (Truong, 2016). Smith's next criticism is the radical voices in favour of prostitutes, to which she responds that a rich space is shared with prostitutes to discuss and fix their issues no matter how terrible they are (Smith, 2011).

In the context of Pakistan where the most illiterate and vulnerable women join this practice of prostitution, they are manipulated and exploited, and not allowed to speak or share their sorrows, as it has been noticed by Saeed, who took years to listen to the problems experienced by young prostitutes, who were repeatedly told by some family members not to share these details. Like Smith, Elizabeth Kingdon also takes radical feminists' approach, particularly MacKinnon's views that laws insufficiently define women's rights and violence committed

against women in male chauvinist societies as reductionist. Kingdon thinks that by this means, radical feminists condense legal relations to mere economic relations and similarly reduce the power relations between men and women only (Kingdon, 1991).

Mackinnon's arguments are aptly valid in the context of the current study where patriarchy survives through women's subordination and violence against them in Pakistan, and laws are either insufficient or if they exist, they are not exercised against men. Pitiably, there does not exist much work on prostitutes; and the concepts of stigma and taboo are so prevalent that the study in this dimension is called creepy. For this reason, women engaged in prostitution in East and South Asia whenever asked, they talk about the alternatives that relate not to becoming a prostitute, as a Filipino prostitute spoke at the Second World Whores' Congress, that "the right not to become a prostitute is not given to them" (Second World Whores' Congress, 1986).

Similarly, International Labour Organisation (ILO) – that has designed its protocols for tumbling poverty, attaining impartial globalisation, and increasing opportunities for men and women to attain decent work along with the settings of security, freedom, dignity and equity (International Labor Organisation, 1919) also damp down this sexual practice. According to the protocols of this organisation, prostitution cannot be taken as a rewarding commercial activity. As Satz adds that practice of prostitution is a "desperate exchange" that can be eradicated if realistic alternative resources are provided for their living (Satz, 2010).

Method

This article uses qualitative cum descriptive approach along with textual analysis as method to analyse Saeed's ethnographic book *Taboo: The Hidden Culture of the Red Light Area.* Using the conceptual framework of radical feminist theorist of sexuality, Catherine MacKinnon, this inductive study analyses and explains the selected book under a descriptive methodology. For the said purpose, the book has been read closely to select the manageable chunks relevant to the argument of the study to support the analysis. In order to enhance the validity, along with the textual references, the other scholarly and theoretical support is also made part of the analysis.

Theoretical and Conceptual Inclinations

The theoretical model of radical feminist, Catharine A. MacKinnon from her work *Toward A Feminist Theory of the State* (1989) is used to analyse the selected book. MacKinnon explicates how patriarchy subverts women engaged in prostitution in Pakistan by having a full control over their bodies, and by making them objects to be used in sex market for creating capital. She asserts that women's power of sexuality is yet not in their control. She defines sexuality, as "a social procedure which forms, systematises, and guides desire, shaping the social categories we understand as men and women, and their mutual relation creates a society" (MacKinnon, 1989). She is of the view that women comply with the dominant patriarchal norms and that compliance becomes a curtain to cover social reality into a natural order. Hence, social reality is rendered indiscernible. In male-centered setup, women are made to learn that they can only be defined with submissive roles; however, if they challenge those roles, it means they put male supremacy in question which brings patriarchy in danger.

Mackinnon's argument that sexuality brings alienation to women instead of power; that is why women are the objects of men's sexual desires in every patriarchal society helps us understand women's alienation in the context of Pakistan. However, capitalist and patriarchal men claim that sexuality provides women with desire and power, which is why they exercise it in prostitution, a notion that MacKinnon forthrightly rejects. She further argues that this alienation makes a woman engaged in prostitution an oppressed and disturbed individual being used as the customer wants. She becomes a commodity since female sexuality is an object that can be sold, stolen, battered, bought or swapped by others. Hence, sexuality is never a woman's possession (MacKinnon, 1989, p. 87). Her these ideas help us locate the perceptions and external expectations surrounding women's sexuality in the selected book.

Mackinnon further argues about the denial of choice due to the social construction of women's roles, which define them as objects of sex available for men all the time. The patriarchal system where men have absolute powers binds women to perform (sexual) actions redundantly without consent. MacKinnon asserts that the idea of consent becomes insignificant since she understands that men embed their ideas in women's minds which can be called internalisation leading toward yes, every time. Consequently, the concept of consent becomes irrelevant; it is simply powerlessness, what women think, "power forged from powerlessness" (MacKinnon, 2007). The idea is additionally relevant to women engaged in prostitution, who, in dire circumstances have no other choice except to sell themselves, hence, their choice is forged into powerlessness. MacKinnon takes this powerlessness as an exploitation of women since she links this inability to the economy and material conditions,

henceforth, making clear that this powerlessness is an external factor imposed by men. These theoretical grounds are helpful in locating external factors responsible for making women vulnerable in Saeed's *Taboo*.

MacKinnon quotes Dworkin while adding to the rights of women engaged in prostitution, who says, "whatever can be stolen can be sold, the security of a woman's person is stolen and sold in prostitution" (Dworkin, 1979). Similarly, MacKinnon expounds that ownership of property is also a civil right, but women in this sexual slavery are systematically kept deprived by the brothel owners and pimps who attain the lion's share of their earnings. Explaining the concept of exploitation, MacKinnon remarks that it does not make any difference to a woman engaged in prostitution whatever she earns since the more she earns the more the pimp snatches, and she is penniless at last. Further, a woman engaged in prostitution turns into a low-priced commodity, a commodity which is metamorphosed over time, and what she gets in her later age is the realisation of being an object along with hunger. Prostitution brings stigma to her since sexuality is a stigma and most importantly being a woman is a stigma (MacKinnon, 1989). Moreover, a woman in prostitution survives with the only burden of satisfying male pleasure in a patriarchal culture which again reduces her to an object. They are taken as men's things, objectified, exploited, and victimised since their pleasure is unavoidably associated with what MacKinnon calls sadomasochism (MacKinnon, 1989). Thus, MacKinnon's legal interventions also serve to ground women's exploitation in *Taboo*.

MacKinnon, while highlighting women's exploitation and subordination, further writes that sadomasochism works on power dynamics because it is rooted in men's psyche to listen to the screams, yells, and cries asking for clemency. Men visit prostitutes for their psychological and physical sufferings to materialise their manhood. They abuse them and like their subjugation and helplessness. MacKinnon adds that they are exploited economically, reified, physically abused, excluded from mainstream society, and deprived of self-respect, credibility and resources. Hence, it is not the individual's but the state's fault and violation of human rights (MacKinnon, 1989).

MacKinnon's idea of consciousness-raising or the "Theory of Knowing"— the process which deliberately acts as a mirror to affirm women that they can be actors to bring change (MacKinnon, 1989), is also significant in the case of prostitution. It is a journey to know about a social being to bring transformation in her. Mackinnon illustrates noteworthy aspects of consciousness shaping under male oppression when, initially, women struggle against male subjugation, and, secondly, women think they find ways to counter male chauvinism to practice their ideas but it is never so. What MacKinnon suggests through consciousness-raising is the impression of self, leading women from nothing to an important self. It happens through a shared history of similar issues, meanwhile, shaping reality and alternatively shaping the consciousness of other women through multiple questions when they share their experience of objectification or of being taken as an imaginary thing (MacKinnon, 1989). The next section analyses the selected text by using these conceptual markers.

Results and Discussion

In *Taboo*, Saeed puts forward several structural flaws of the patriarchal society of Pakistan, where within the sexist hierarchy, women are further dichotomised as 'good' and 'bad'. They are inferior in the social hierarchy; they do not experience the dialogical level to share their ideologies and speak about their experiences. Saeed's idea echoes the opinion of American Psychoanalyst, Jessica Benjamin, who quotes that reciprocal relationships lead toward intelligibility, subjectivity, and equality; however, women are neither subjects nor taken equal to men in Pakistan, therefore reciprocity is not allowed there, instead, they are made silent (Benjamin, 1995). This is the case with mainstream women, however, the women of *Heera Mandi* are further excluded and left at the margins of the main society. They are considered as the things to hate, sexual objects for customers, and helpless creatures that relate to MacKinnon's idea of sexual objectification, women's inferiority and othering (MacKinnon, 1989). Saeed notices that people do not talk to them to avoid the repercussions of stigmatisation (Saeed, 2002). That is why the policeman in *Taboo* also does not provide any information to the writer about *Heera Mandi* since the actions carried out in the *Mohalla* are buried mysteries not to be revealed. Moreover, Saeed encounters disgusting remarks in the beginning when she asks questions from the people whom she visits because they think that decent women never visit the *Mohalla.* In these circumstances, speaking in their favor is no less than a crusade for these oppressed women, who are unable to make reciprocal relationships and choices due to their lack of material power (Khan, 2023).

However, another policeman shares his views that the place is taboo, nobody talks or comments about it. Then, unpredictably, he utters that "you are stepping on many people's toes" (Saeed, 2002), where 'many people's toes', we believe intrinsically indicates the complex but systematic network of people engaged to run the

'business' and generate revenue. In this web of people, 'a woman engaged in prostitution' is the center of the business, but she is at the margin – the phenomenon what MacKinnon indicates as organised expropriation or alienation of females' sexuality, especially those who are engaged in prostitution. Sheila Jeffreys and Richard Poulin also argue that, in the past, women were heading towards equality; however, men as a powerful section, promoted sex industries so that they reinstall their authority to exploit women economically and sexually (Jeffreys, 2009; Poulin, 2004). Moreover, Dworkin's remarks that it is not only sexuality but rather women are objectified since the self is very much important for the working of a body, further explicate MacKinnon's idea of female alienation. Keeping the above remarks in observation, it can be said that women engaged in prostitution refute the claim of patriarchs and capitalists that sexuality empowers female gender and brings agency and desire to them. However, Saeed's response to the policeman's comments "it is a dilemma if there exists any study, it focuses on prostitutes, whereas men's structural superiority and practice to show themselves as subjects remain unexposed" (Saeed, 2002) seems a challenge to hush the policeman and continue with her work. Thus, Saeed's claim has power since it is a woman engaged in prostitution who is stigmatised, gazed at, deemed untouchable, and inferior in Pakistan; she is an inferior gender, detested and stereotyped, and in her case, the justice system falls prey to red tapism.

Furthermore, this ethnographic work exposes important aspect of the masculine version of depicting 'women engaged in prostitution' which Saeed takes as fabricated, politicised and shaped as men desire. Amjad Shah remarks that "a prostitute is not fit to be a sister, wife or mother" (Saeed, 2002, P. 4). Shah's discourse represents the ideology of the state's institution, which ultimately represents the ideas of patriarchy He declares these women another class, quite intolerable in conventional society. That is why these women bear a hostile stigma. Shah's point of view further conveys that men construe them as extraordinary creatures instead of normal human beings, thus his notion resonates with radical feminists' view that men's easy access to these women in prostitution, the vulnerability of these women who are triply subjugated — being women, poor, and radical others, and exercise of male power make them the extraordinary and eccentric characters in the mainstream society (MacKinnon, 1989; Farley, 2004). Saeed debunks these stereotypes constructed against the women engaged in prostitution in a patriarchal Pakistan, and against this illogical depiction, she re-imagines the practice of prostitution in *Heera Mandi* by accentuating the role of clients instead of prostitutes (Saeed, 2002,). In so doing, she exposes the powerful business dynamics, showing how men are more energetic to keep these sexual services going on, while women wish to terminate if they were offered some alternate opportunities for survival. As a result, Saeed unveils women's powerlessness and devaluation as a sexist practice that has taken the shape of a social fact in red light district in Pakistan.

Taboo depicts the adulterated area of *Heera Mandi* as a metaphor for men's carnal pleasures and 'women engaged in prostitution' as their fantasies with their commodified bodies instantly accessible. Economics and sexuality run parallel there for the existence of sexual practice. With lost virtue and no honour, women of *Heera Mandi* expose paradoxes, how traditional patriarchy and feudal system facilitate their business to sustain despite multiple attempts to unsettle it. This fact leads to assume that patriarchy accomplishes its sexual pleasures by violating the bodies of the women of *Heera Mandi*; and alternatively use the metonym of public women, defiled and whores to marginalise them.

Saeed delves deep into the intricate web of prostitution in *Heera Mandi* through *Ustad* — a teacher or mentor— Sadiq, a musician, who trains the girls of *Kanjar* families in their formative years of life, therefore helps in revealing the secrets through his student, Laila (Saeed, 2002). Laila considers prostitution as Dworkin mentions, 'an abuse of a female body' (Dworkin, 1993). It signifies that the younger generation wants to speak up about the authenticities veiled behind the concept of taboo. In so doing, they confront this widespread concept to restructure it by shifting and reconstructing their identities as artists — singers, musicians, dancers, or as what "Laila desires to be, an actress" (Saeed, 2002). This younger generation does not want to become the victims of this practice but rather attempts to highlight the primary cause of this sexual slavery, bringing political and social contexts also into this debate. It is not Laila's choice to engage in the practice of prostitution but she is forced by her family which becomes dialogic to Geetanjali Gangoli's remarks that women engaged in prostitution need attention with a priority to listen to their issues (on political and state levels) and it needs further hard work to free them from this sex-selling business (Gangoli, 2008). MacKinnon also prioritises the voices of these marginalised women to understand structural inequalities (MacKinnon, 1989). Saeed's ethnographic book has given voice to Laila's career choice in her future. Also, Janice Raymond's words support the idea of choice, "No matter whether women experience forced entry or initial 'choice', they are still used and used up by an industry that exploits them to the hilt" (Raymond, 2013). These assertions help to understand Laila's subjugation in red light district of patriarchal Pakistan.

For women in *Heera Mandi*, the alternate roles like singers and dancers seem exotic to men, and these women become men's playthings when they are pinched, ridiculed and pulled during their performance hours, and in the end, they are asked for sexual services. Saeed's characters, Laila and Pami are desecrated when they go to artistic performances, as some feudal lords and businessmen contact them for sexual advances. Laila utters, "Pami was pinched so hard that she had a bruise" (Saeed, 2002). These details are similar to what MacKinnon indicates that women exist for the realisation of male pleasures and that women in sexual practice are not better than dead (MacKinnon, 1989), or women engaged in prostitution are nonhumans legally, so, they are dishonored (Anderson, 2002). Dworkin's views also validate the given points that affluent men buy sex services for pleasure and that pleasure is conditioned with the intimidation and humiliation of 'women engaged in prostitution' (Dworkin, 1979). That is why the patriarchal call for sexual contact leaves art of singing and dancing as an unsettling and unstable idea for Laila and challenges the traditional concept of art as a self-governing activity that cannot be associated with the political and social circumstances in Pakistani patriarchal society. Among these brutal power structures, Laila convinces herself "to drop her somber thoughts and kneel to the orders of her pimp aunt" (Saeed, 2002). In Laila's case, her wish to only dance does not materialise, instead, the idea of men's power works and she is used for sexual services. Nonetheless, Laila needed to know how to erase what MacKinnon views as women's extraordinary reliance on others — pimps or brothel managers — for economic purposes, which MacKinnon suggests, can be erased through consciousness-raising. This method erases women's conditioned thoughts related to powerlessness through socialisation, sharing experiences, and creating space where they can move freely (MacKinnon, 1989). Furthermore, consciousness-raising erases the idea of being an object, as Laila is being treated; and in its place, it gives women the concept of freedom and self.

Saeed's ethnographic work also informs about the working of patriarchal practices in the *Kanjar* family itself, where men abuse and beat their girls if they do not entertain clients. "They fight with them for not paying the full price of living in their parent's home" (Saeed, 2002), stressing how a brother or a father becomes a pimp in *Heera Mandi*. MacKinnon's concept that 'women engaged in prostitution' are things, so, they are victimised and taken with greater sexual power for realising men's pleasure also called sadomasochism; and a failure to tolerate clients' violence brings out wrath in their pimps who may be a father or brother (MacKinnon, 1985) aptly responds to the ongoing practice in *Heera Mandi* as depicted in *Taboo*. These girls are men's things as their pimps think; they can use and abuse them; therefore, they torture them if they fail in their duties (Saeed 2002). MacKinnon's idea that sadomasochism is practiced in a power/subjugation dichotomy further exposes the female gender's vulnerability in the patriarchal Pakistan, where men belong to power and women are subjugated, because, the state provides power to men what MacKinnon again asserts that it is a human right's violation (Mackinnon, 1989).

In *Taboo*, Soni, is a teenage girl as Saeed states that she has not reached her puberty, but her father negotiates with client the price of *Nath Utrwae* (deflowering her virginity), which shows working of patriarchal power dynamics within the family in *Heera Mandi*. Her father exercises his power (as feminists argue that patriarchy has its roots in materiality) over his daughter or as another character in *Taboo*, Ustad Gaman articulates, "this happens when *dalle* (pimp) take the management" (Saeed, 2002). In so doing, her father violated her human rights (Saeed, 2002). Soni experienced unequal power relations, sexual exploitation and coercion. The money that her father obtained for his daughter's rape is thus a form of force for Soni, but not a measure of her consent. In this oppression, Soni was unable to avail any other alternative. Emotionally and mentally, she was unable to manage the sexual activity in which she was forcefully engaged that made her stressed and silent (MacKinnon, 2007).

Taboo also makes us understand the ways of linking sexual practice with power structures and the country's economy through different institutions. In so doing, the book exposes the role of institutional exploitation also. Saeed figures out this exploitation through the appointment of a police station officer of *Tibbi Thana*, the adjacent police station of *Heera Mandi*, through "heavy bribery to the city government" (Saeed, 2002). Since the officer has paid bribes, he controls and harasses the people of the *Mohalla* to recover thrice times more than the money he paid as bribery. Mehmud Kanjar – known as "the greatest pimp of our times" in *Heera Mandi*, a philanthropist for his community which he thinks is already oppressed by the police, administration and political leaders, exposes (Saeed, 2002) this corruption of state institutions. This mirrors MacKinnon's claim (1989) that the state underhandedly guards male sexual misconduct, which further unveils the fact that victimisation is a politically stimulated phenomenon because of men's dominant place in society. Similarly, Andrea Dworkin and Dorothy Roberts also argue that instead of protecting these women, policing practices exacerbate their exploitation (Dworkin, 1979; Roberts, 1998). *Taboo* conveys that police act as commanding and punishing forces with complete control over 'women engaged in prostitution' by taking a hefty part of their earnings. Mehmud Kanjar discloses that being poor, they are abused, shamed and humiliated. One Police officer remarks in a discussion with Saeed that they are "the scum of society, so they will disgrace them and crush them" not only exhibit the exercise

of power but (Saeed, 2002) also validate Mehmud's statement that due to having power, state institutions manipulate these women.

State institution of Police collect heavy money from the brothel owners or '*dairedaar'* (landlords), as Saeed reports that "the police officers distribute the bribe money among themselves as settled in ascending hierarchy" (Saeed, 2002). Thereby, it indicates that the police also support patriarchs, who go there to use these women. It also stresses that along with gendered power structure, institutions too, oblige male-designed norms. As women engaged in prostitution usually belong to the vulnerable class, therefore, it becomes easy for police to judge them on strict terms. Politicians also are striking customers of *Heera Mandi* with their mistresses there, whom they visit when the *Mohalla's* working hours, 7pm to 11 pm are over (Saeed, 2002). These institutions – police and politics, expose the paradox of patriarchy that want to sustain the practice of men's entertainment. Another angle of men's conversation with 'women engaged in prostitution' opens up the patriarchal paradox to sustain the practice when men not only use these women, but recurrently remark that they are not for marriage but to amuse men sexually. Saeed's character, Chanda is repeatedly told by elite men that her life would end up in sexual services. Some other businessmen and bureaucrats tell her that "free women are not to marry since the place of their work is reserved for them" (Saeed, 2002). This idea of patriarchal men explicitly conveys the ruling attitude of men and these women's victimisation and sexual objectification. That is why for radical feminists also, prostitution is rape; it is rape in Chanda's case also since she is forced to earn extra money by entertaining many clients. It is not only the use of women as sexual objects, it also establishes men's power over women; and the activity reduces women to their sex and dehumanises them (Dworkin, 1979, 1993, MacKinnon, 1985; Jeffreys, 2009; Barry, 1995). The practice of forced sex also exposes how the basic right of women engaged in prostitution to take a decision about their life is snatched; and instead, they are snubbed, shamed, and ridiculed for their deviance, so that they remain silent.

In addition, abduction and trafficking are also part of *Taboo*, for which, women of traditional society become victims, when they are brought to *Heera Mandi*. Pimps manage their private brothels in *Heera Mandi* to run their business by using trafficked women – who are vulnerable in mainstream society. As Yasmeen's empirical study indicates that women in Lahore, Pakistan are kidnapped for prostitution, acid attacked and killed in honour killing. Also, almost 70-90 % women face domestic violence (Yasmeen, 2018, p. 26). Yet, another study reveals the familial determinants as major reasons of trafficking in children. Family is found to be mainly associated with the vulnerability of child to be trafficked due to parents' lack of knowledge, voracity for economic benefits, abusive behavior at home, family dissolution and drug abuse (Ali et al., 2014). Razia in *Taboo* is a teenage character who is trafficked first and then sold to the next procurer (Saeed, 2002). By this means, the pimp produces goods to keep the business functioning (Jeffreys, 2009). Melissa Farley's claim that trafficking expands the market of women's sexual exploitation and subordination in a patriarchal society (Farley, 2009) also supports the idea of expansion of sexual business in patriarchal Pakistan. Razia's trafficking, according to Cynthia Enloe (2014) is gendered, commercialised and patriarchal, and she is the most exploited object since she does not have links either in *Mohalla* or back in family. As Mackinnon also indicates that along with sexuality, patriarchy intersects with class and race also – the common constituents of oppression (MacKinnon, 1985), which brings to light, how numerous systems of power transect and shape women's experiences of subjugation. It is not only social acceptance of prostitution but demand for the cheap goods and sexual services that fuels sex trafficking (Lilley, 2019). As soon as Razia comes under a pimp's control, she is conditioned that she is a woman with lost virtue and has nothing to do with traditional people. Razia is subjected to a number of rapes and violence, as while explaining the trafficked women's position, Enloe writes that they use drugs to control active women to make them entirely numbed; they are forced to have as many rapes as possible (since radical feminists call sex without consent rape) in one day (Enloe, 2014). Razia has "death threats, torture and abuse" (Saeed, 2002, P. 248) as psychological pressure. This violence, radical feminists inform, destroys the integrity of trafficked woman's body and soul (Radin, 1996; Camirand, 2004; Audet, 2008) as in Saeed's book, Razia has been destroyed because she has made herself a "drug addict and exposed to many sexual infections" (Saeed, 2002). She is trafficked because pimps traffic adults; also, they remark that they traffic adults because they are excessive in demand. Trafficked victims like Razia are not kept in a fixed place but are rather traded on and on to the next procurer, so that they never come out of debt and try to go back, an idea that construes them as commodities, an object of mere sexual trade to be sold and bought again and again.

Internalisation of Patriarchal Ideologies
Since this article also argues that mainstream women have also internalised the patriarchal ideologies and Fouzia Saeed – the author of *Taboo* herself is the explicit example of this contention, this section elaborates the process of patriarchal internalisation. Though national media of Pakistan critically covered Saeed's project and she

was labelled as "a PhD girl in *Heera Mandi*" in news headlines (Saeed, 2002), Saeed writes that all her male friends walked on her both sides protectively (Saeed, 2002). In so doing, Saeed deviates from her thoroughgoing claim of exposing mysteries of patriarchal powers against prostitution to an innocent assertion of acknowledging the difference of power. She proves herself unknowingly as a member of mainstream society where women have what MacKinnon says, internalised male power (MacKinnon, 1989), and men are conditioned that they are protective, therefore, superior, which willfully leaves the female gender as fragile, powerless, and inferior. If men in patriarchal culture are not offensive and abusive to women, the concept of protection dwindles entirely. However, if women have conceptualised that men are their protectors, it points to denouncing one kind of power (exercised by men in prostitution which Saeed is claiming to denounce) by replacing it with another kind of power, (that they practice on mainstream women by becoming their protector/guards) which according to radical feminists is the internalisation of the incessant conception of patriarchy and sexism (Jeffreys, 2009; Poulin, 2004; Farley, 2004). MacKinnon asserts it as male supremacy since men consider their control as protection, and then violate the bodies of the protected by means of acting as a relative (uncle, cousin, or brother in law etc.) (MacKinnon, 1987).

Once more, Saeed shows partial behaviour, when during her visit to the *Mohalla*, Saeed's cousin, Sara dances for a while. In response, not only does Saeed's tone get angry, but she stops her by shouting "it is not the place to dance, do you see what are you doing"? (Saeed, 2002). It was precisely the same objection Saeed encountered from her friends at the commencement of her project when they warned her that "you don't know what you are doing by taking this chapter as a study" (Saeed, 2002). Thereby, Saeed's lens is very much the same as that of mainstream people since people are conditioned to the superior gender's stereotypical constructions in Patriarchal culture of Pakistan. Saeed is also conditioned to what men think of and speak about the place (*Mohalla*) that she might have taken from her family or the place where she works. As Kate Millet also highlights, that power works through the institution of family, authority, coercive control, and through institutions (state, church, military, etc.) to practice ideologies that validate men's power and women's subservience (Millet, 1978). In Saeed's context, MacKinnon's idea about women's compliance in patriarchal societies also becomes relevant (MacKinnon, 1989). Correspondingly, Rothenberg and Jaggar's notion that patriarchy has its roots in materiality and institutionalises male superiority, no matter in which class they have their place, they are superior, who practice their power to make women subordinate; and women's submission whether voluntary or through false consciousness leads toward compliance and conditioning (Jaggar& Rothenberg, 1993) also supports the discussion. Unsympathetically, with this conditioning, women follow all patriarchal ideologies and false myths, and it has become a convention in patriarchal societies like Pakistan.

Furthermore, Saeed refers to 'women engaged in prostitution' in *Heera Mandi* as "unruly and rowdy" (Saeed, 2002), as they are mentioned frequently in traditional society, and the *Mohalla* is taken as a place of cheap pleasures. It appears as an involuntary and unexpected turn of Saeed about women engaged in prostitution, which makes her a little bit naive during her writing project since she leaves the adjectives used for 'women engaged in prostitution' unattended. Dworkin's concepts elucidate Saeed's given remarks about these women that 'women engaged in prostitution' are destined to serve due to their family's pressure. They stray from the traditional marker of sexuality; thus, they need to attend to clients whom they hate enough. They are compelled to earn money essentially one or two hundred Pakistani rupees from each customer, who comes to attain violent sex what Dworkin calls on vaginal slime (Dworkin, 1983). The vagina thus acts like slime, a plaything for men. It also shows that they are taken as subjugated beings due to their vulnerability. Hence, Saeed's approach towards the 'women engaged in prostitution' in *Heera Mandi* explicates her internalisation of mainstream patriarchal ideologies.

Conclusion

This article has informed that sexually transgressive practices along with trafficking for sexual activities are executed under the shadow of patriarchy and state institutions in *Heera Mandi*, Lahore, Pakistan. Saeed has faithfully revealed the ruthless tradition of patriarchy in realising the patronised practices of transgressive sex and trafficking for sexual slavery since in the patriarchal setup of Pakistan, men are given absolute power, and women are defined and re-defined in terms of sexuality. Moreover, the article has informed that patriarchal notions are threaded in society's structure and institutional setup in the form of their ideologies which conveys the idea that society and institutions oblige patriarchal ideologies and therefore marginalise the female gender. By means of these structural flaws, women in the patriarchal setup of Pakistan's *Heera Mandi* are objectified, stigmatised, and abridged under the adjectives of whores, diseased, not for marriage and polluting male bodies. However, the study has unveiled this secret as well, that while setting aside women's degradation, patriarchy wants the institution of prostitution to grow so that they get entertained without trouble. The article also has proved that mainstream women have also internalised the patriarchal ideologies when they unintentionally speak patriarchal thoughts. Thus,

this textual analysis concludes that patriarchal ideologies admittedly sanction women's inferiority and allow the practices of prostitution and human trafficking to survive in *Heera Mandi*. The article suggests the restructuring of the social fabric of patriarchy to eradicate gender inequality through feminist activism as well as consciousness-raising and political awareness of women in its entirety. In Saeed's *Taboo*, there are certain aspects, i.e., the culture of courtesans in Mughal times, traditions of *Mohalla*, and political economy of prostitution that can be studied under historical, cultural and Marxist theoretical frameworks, respectively in future.

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Analyzing Post-2010 China-US Defense Expenditures: Uncovering the New Arms Race

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The New Arms Race encapsulates a dynamic geopolitical competition characterized by escalating military capabilities and strategic posturing between the U.S and China. Amidst the intensifying Sino-US arms race, the objective of this research is to examine the trends and patterns of Sino-US defense spending's (2010-2022) to analyze the evolving military competition's strategic, economic and social implications, contributing to the discourse on global security and stability. Data from reputable sources like SIPRI, IISS, plus official budget reports and defense White-Paper's inform the analysis. Using a mix-method approach, quantitative data is descriptively presented to highlight trends, patterns, and significant changes over time. Plus, qualitative analysis is conducted to interpret the implications of these expenses, drawing on International Relation's theories and expert opinions to assess how shifts in military spending influences power dynamics, alliances, and conflicts? The results show that, the global military expenditures surpassed $2240 billion. China's defense spending has seen a 29-year consecutive increase, while the US maintains its top spender status, propelled by ongoing modernization efforts and diverse geopolitical strategies. This study is Grounded in the "Security Dilemma" framework, assumes that potential enemies would view a country's attempts to strengthen its security as a threat, setting off a cycle of action and reaction that deepens mutual suspicions and contributes to the potential for an arms race. Due to the Sino-US ongoing military modernization plans and diverse geopolitical strategies, it is suggested that this tendency will persist in the foreseeable future.

Keywords: New Arms Race, Defense Expenditures, Security Dilemma, Military Modernization.

In an era, characterized by escalating global tensions, numerous nations are amplifying their armaments at an unprecedented rate. Over the past two decades, global defense expenditures have experienced a manifold increase, reaching a pinnacle of $2240 billion, the highest recorded point in history (SIPRI, 2023). A comparable peak in spending was previously observed during the zenith of the Cold War arms accumulation in the late 1980s. Nonetheless, in 1991, the sudden disintegration of the USSR altered the geopolitical landscape significantly. Subsequently, military expenditures experienced a sharp decline, large-scale military conflicts became a rarity, and economic prosperity was prevalent. By 1998, global spending plummeted to its nadir since the Cold War (Tian et

al., 2018). The paradigm shifted once again following the events of September 11, 2001. The attacks catalyzed a strategic recalibration within the United States towards Afghanistan and Iraq, instigating a substantial military mobilization in the War on Terror. As the US and its allies dispatched troops to Afghanistan and Iraq, global defense spending figures surged. This upward trajectory persisted until the first term of President Obama, during which war-weariness, internal budgetary constraints, and troop withdrawals exerted downward pressure on spending once more (Moyar, 2015).

During this period, Asia was experiencing a major geopolitical transition, with China's ascent to prominence (Clinton, 2011). In 1990, the US, the USSR, the UK, Germany, and France made up the top military spenders. But fast-forward to the second decade of 21st century, those top spenders have drastically changed. China has jumped from a share of two percent to thirteen percent of the global total, the second- largest military spender behind the US (IISS, 2024). The country's explosive economic growth allows it to increase spending for almost three decades. The Chinese defense budget saw a double-digit rise until 2015. China has recently increased its military spending as part of its long-term intentions to modernize and expand its armed forces in order to catch up with other powers amid the century (Maizland, 2020). Therefore, the Ministry of National Defense claims that the potential threats to China's national security posed by the new great power rivalry and "power politics" are what spurred the country to raise its military spending (Cordesman, 2019).

A unique geopolitical environment has been created by China's extraordinary military ascent. It has transformed the threat matrix for potential rivals. It helped prompt spending increase throughout the Asia-Pacific region. Defense spending rose in a number of varied nations, including Australia, South Korea, Vietnam, India, and Japan. Overall, in the whole of Asia, it is almost seen as an active Action-Reaction. Most importantly, the United States has taken notice too. Without a doubt, The US continues to be the unchallenged leading military force in the world. In 2023, its defense spending was higher than the next 15 biggest spenders combined (IISS, 2024). The US defense budget still dwarfs China by a significant margin. The United States continues to be the world's highest spender. Its defense budget accounted for almost 40.5 percent of the entire world's military spending. In 2023 alone, the US defense expenditure hits $905.5 billion, an increase of 4.4 percent from 2022 (Rocha, 2024). The US military spending accounted for 3.5 percent of its GDP in 2022. Following the continuous real-terms decreases from 2010-15, the US increased its defense spending for eight consecutive years. A significant portion of this amount is allocated to R&D and the execution of long-term programs such as upgrading nuclear arsenal and large-scale military procurement (Rocha, 2024).

China's rise remains the main factor behind the increase in US defense expenditure because the US perceives it as a threat and strategic competitor. China is focusing on the modernization of the People's Liberation Army (PLA) along with improving Air force, Navy, Rocket Force, and the Strategic Support Force (Wuthnow, 2020). As a result, China is increasing its might in the Western Pacific and enhancing its A2/AD (Anti-Access/Area-Denial) capabilities. Now, It will create difficulties for the US submarines and aircraft carriers to approach mainland China and enter the South China Sea (IISS, 2024, p. 246). In spite of that, the US has operated in the western pacific Since WWII, and considers it as a private American lake (Kaplan, 2011). So, it is the pushing of the boundaries of the sphere of influence between China and the US. China's expanding power has been on the US radar for years. But the president Trump election ushered in a particularly hawkish national security staff, which pushed the idea that the world is entering a new era of great power competition, reviving justification for the large-scale conventional forces and nuclear arsenals. In order to get ready for possible conflict in the so-called era of great power competition, the Trump administration launched plans for military modernization. These included modernizing the navy's aircraft carriers, purchasing a new F-35 jet platform, developing next-generation bombers and submarines, upgrading nuclear forces, and pouring money into cyber operations and space force (Saeed & Yaqub, 2023).

Consequently, the problem is that the persistent escalation in Sino-US defense expenditures has significant implications for both global power equilibrium and regional geo-strategic stability. Since, one's pursuit of security may be perceived as an escalation by others. Therefore, this research seeks to explore how the increasing Sino-US defense expenditures and the resultant New Arms Race influence the global power equilibrium. It will also explore how these developments affect global geopolitical stability and regional geo-strategic dynamics, as well as their broader economic and social implications on international relations. The objective is to analyze the trends in defense spending by these two nations, assess the consequent effects on regional security and bilateral relations, and to illuminate the evolving military competition's strategic, economic and social implications, contributing to the discourse on global security and stability.

In that respect, this study uses a mixed-methods approach, combining quantitative and qualitative instruments to thoroughly examine the trends and patterns of Sino-US defense expenses and their impacts on the

global and regional geopolitical landscape. Data on military expenditures are descriptively presented, utilizing statistical methodologies to highlight trends, patterns, and significant changes over time. Complementing this, qualitative analysis is conducting to interpret the implications of these expenses, drawing on International Relation's theories and expert opinions to assess how shifts in military spending influences power dynamics, alliances, and conflicts? Data is collected from secondary sources i.e., books, articles, research journals, newspapers plus official budget reports, defense white-papers, and data reports published by SIPRI, IISS, UNROCA and World Bank. By combining these methodologies, this research offers nuanced perspective that captures both the empirical data and complex geo-political contexts in which these expenditures occurring.

Theoretical Framework

This study is Grounded in the "Security Dilemma" theoretical framework. The idea of the "Security Dilemma" is a core concept in International Relation's coined by John Herz in 1950 (Herz, 1950). It explains the geo-strategic environment in which two or more states, even fundamentally defensive in their intentions, end up in a cycle of mutual suspicion and arms accumulation. This occurs because, under conditions of anarchy, States cannot be assured of each other's intentions. As a result, one state's security-related measures may be viewed as threats by other states, setting off a cycle of action and reaction that escalate tensions and increases the likelihood of conflict and Arms Race (Tang, 2009). In this case, China's expanding military might and economy in recent years have notably shifted the global power equilibrium. As per the DOD annual report to congress, titled "Military and Security Developments Involving China, 2020," declares that, the PLA has surpassed the US forces in various aspects, such as missile advancements, warship numbers, and air defense systems ((DoD, 2020). China claims that its military growth and economic development primarily aim at safeguarding its territorial integrity and economic interests. Therefore, China is upgrading its armed forces, enhancing its navy, developing advanced missile technology, and strengthening its capabilities in cyber and space domains. In turn, the United States, the established hegemon, views China's ascent with a blend of apprehension and doubt. While acknowledging China's defensive motives, the US remains uncertain about China's future actions. This uncertainty prompts the US to bolster alliances such as the Quad and AUKUS with Japan, India, South Korea, Taiwan, and Australia, increase military presence in the Indo-Pacific region, and heavily invest in new military technologies. Consequently, the Security Dilemma theory offers insight into the strategic rivalry between the US and China. It will create intense security competition and a spiral arms race both globally and regionally. Despite both nations claiming defensive strategies, uncertainties and defensive actions fuel mutual suspicion and power accumulation, elevating the risk of conflict and underscoring the tragic nature of the security dilemma.

Unraveling Defense Expenditure: Inclusive and Exclusive Elements:

The defense spending patterns demonstrate the economic resources spent by a state for military purposes. Defense expenditure is a controversial subject because there is no universally acceptable definition of military expenditures. The UN Office of Disarmament Affairs (UNODA) defines military expenditures in three separate categories consist of research and development (R&D), construction and procurement expenditures, and operational costs. The Operating costs include the spending on Personnel, Conscriptions, Materials for current use, and Maintenance and repair. The Procurement and Construction expenditures include the procurement of aircraft and engines, Missiles, including nuclear and conventional warheads and bombs, Ships and boats, armored vehicles, artillery, ammunition, electronics and communications and non-armored vehicles. The construction includes the construction of air bases, airfields, missile sites, naval bases, Personnel facilities, Medical facilities, Training facilities, Warehouses, depots, Command & administration facilities, Shelters and Land. The Research and development expenditures include the cost of basic and applied research, development, testing, and evaluation casts (UNODA, 2023).

According to the Stockholm International Peace Research Institute (SIPRI), all monetary expenditures made on the armed forces, defense ministries, peacekeeping forces, and other governmental organizations involved in defense projects, such as paramilitary forces, and military space operations are considered military expenditures. It also covers human costs (such as wages, benefits, and other social services for both military and civilian staff), as well as costs associated with operations and maintenance, purchasing, research and development, and military assistance (SIPRI, 2024). Whereas, NATO defines military spending as the sums of money that nations spend throughout a fiscal year to pay for their own national armed forces. Conversely, many nations opt to define their own military expenditures, despite efforts by UNO, SIPRI, and NATO to provide a uniform definition. The Chinese defense budget defines the military expenditures as the allocation to three different areas i.e., personnel, training and sustainment, and equipment. Personnel expenditures include salaries, allowances, foodstuff, comforter, clothing, insurance, subsidies and pensions, plus welfare of the veterans. Training and sustainment expenses

include training, institutional education, maintenance and installations of facilities, and additional spending on a routine basis. Equipment expenditures cover R&D, testing, procurement, maintenance, shipping, and arsenal and equipment storage (Crane et al., 2005). The scope of defense spending includes all active, militia and reserve troops.
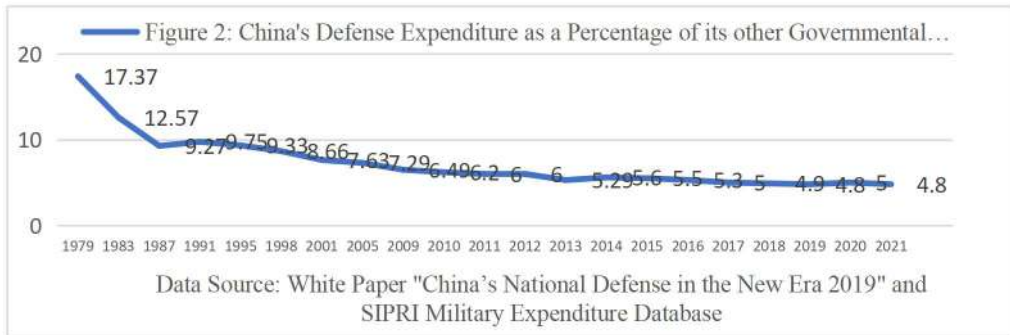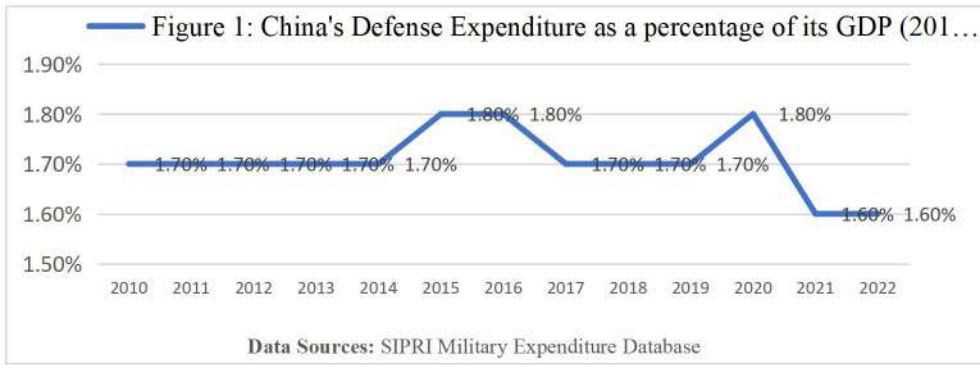
While significant portions of defense spending, which are typically included in Western budgets, are absent from China's official defense budget. It includes expenditures on nuclear weapons and strategic rocket programs, expenses for paramilitaries such as People's Armed Police, external weapons procurement, subsidies for the defense-industrial complex, some R&D related to defense, and extra-budget revenues and expenditures by sub-national governments. These sections are included in other parts of the state budget (Tian, 2021). Furthermore, according to the SIPRI definition, demobilization, the conversion of facilities used for the production of armaments, veteran's welfare, civil defense, and the disposal of weapons are not included in the military spending category (Archer & Willi, 2012). However, the US also does not include considerable sections of defense spending in the official DOD budget. According to Winslow Wheeler, Spending on Homeland Security, Veterans Affairs, the National Nuclear Security Administration at the Department of Energy, cyber-security, FBI expenses, and security costs in the State Department budget for diplomacy, UN peacekeeping, armaments assistance to allies, reconstruction aid for Iraq and Afghanistan, and foreign aid for other nations should all be included in the US defense budget (Amadeo, 2020).

The absence of this data from defense budgets implies that substantial amounts are ignored. Consequently, we may draw the conclusion that the actual global expenditures of maintaining a military force must be far more than those reported in official budgets and other documents released by international and regional organizations, and without thorough reporting on this increased defense spending in each country, a comprehensive worldwide assessment is unfeasible (Archer & Willi, 2012). The Armed Forces entail the strategic, land, naval, air, administrative, command and control, and other forces that are equipped, trained, and organized to support security forces and may be deployed in a practical manner. However, the global defense spending patterns are pronounced in four categories: Operating Costs: which include wages and pensions, as well as the price of servicing and fixing military infrastructure and equipment, as well as the cost of maintaining and training units, service organizations, headquarters, and support components. Procurement and construction expenditures, which include national infrastructure and equipment programs, make up the second category. The third category consists of R&D expenses connected to defense that are intended to bring new equipment into use and, finally, Foreign Military Assistance (FMA) or foreign aid is the fourth category in the global defense spending.

The China's Defense Expenditures

China is engaged in a coherent struggle to construct an affluent country and powerful armed forces, and it is resolute for the growth of the national economy and defense (Jintao, 2012). Recently, the Chinese military expenditures have increased as rapidly as the economy as a whole. It was the impressive growth rate at a time when worldwide defense spending, including the US have been mostly stagnant or declining (Cordesman, 2022). To build the armed forces, China has taken into consideration developing the economy to meet the needs of national security and allocated the appropriate scale and proper amount of defense spending. Since the Deng Xiaoping opening-up and reforms, China has raised up its defense spending from a sustainability level to moderate growth (Luttwak, 2012). Today, The People's Liberation Army (PLA) receives a vast number of resources. salaries have grown, they are at a competitive enough level to draw in enough soldiers, even if there are now more civilian jobs available. The majority of the abandoned bases, depots, barracks, and other sites have been replaced or renovated, and sufficient facilities, tools, and equipment for maintenance have been made available.

As a whole, the growth of defense spending intertwined with the growth of other governmental expenditures and the national economy. In terms of GDP, China's military spending decreased from 5.43% in 1979 to 1.60% in 2022. For the previous three decades, it has remained below 2%. The detail is shown in figure 1. Whereas, in terms of government spending, defense spending fell by more than 12.57 percentage points from 17.37% in 1979 to 4.80% in 2021 (Xuanzun, 2021) (For details, see figure 2). The numbers exhibit a pronounced declining trend. Currently, however, the PLA is able to procure new weapons, new platforms, munitions, and auxiliary equipment enough for every division of each service. It is also able to build and upgrade every facility, plus concurrently the PLA is increasing its training and operating tempo. As a result, China is reining back the fervent qualitative improvement, quick and all-around military buildup, and numerical gains in the number of soldiers and weaponry across all services. which Marxists explain as having the ability for significant quantitative increases to have their own qualitative impacts (Luttwak, 2012). China's influence will spread around the world as long as its military and economy continue to expand quickly. It creates a general anticipation that China would undoubtedly surpass the United States as the world's superpower in the near future.
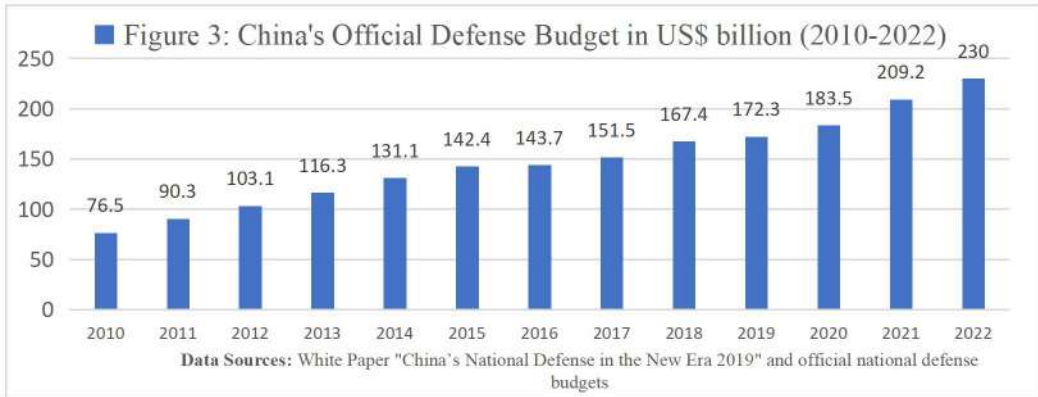
Figure 1: China's Defense Expenditure as a percentage of its GDP (201…

Data Sources: SIPRI Military Expenditure Database

Figure 2: China's Defense Expenditure as a Percentage of its other Governmental…

Data Source: White Paper "China's National Defense in the New Era 2019" and
SIPRI Military Expenditure Database

Post-2010 Trends of China's Defense Expenditure

To keep up with the rejuvenation of the country, China aims to build a strong and equipped military proportionate with the country's national security, global image and development interests. Beijing is attempting to minimize the gap with the most powerful military in the world and to overcome the insufficient military capabilities in modern warfare (Bommakanti & Kelkar, 2023). China allocates its defense budget to three distinct categories in terms of utilization i.e. personnel, equipment and training and sustainment (Erickson, 2019). The salary, food, housing, clothes, insurance, pensions, and other benefits paid to officers, soldiers, and civilian employees of the defense ministry, as well as post-retirement funding from the military budget, are often included in "personnel" operational costs. Training and sustainment operating cost go toward building and maintaining posts and infrastructure, training personnel, institutional education, and other everyday expenses. The expenses associated with equipment encompass research and development R&D, experimentation, acquisition, upkeep, transportation, and storage of weapons and equipment (Erickson, 2019). The following uses of the upward trend in defense spending that began in 2010 have been identified by the 2019 Defense White Paper:

- To adopt social developmental and economical strategies for the social welfare of the personnel, to increase salaries and to enhance training, living and working conditions of the troops.
- To increase arms procurement and equipment's, upgrading the old plus replacing the outdated and procuring and developing the new, for instance, fighter jets, aircraft carriers, main battle tanks, and missiles, to gradually modernize the equipment.
- To intensify military reform, to support principal reforms in command systems and leadership, force composition and structure, and institutions and policies.
- To intensify strategic level training of the armed forces for actual combat, training of services and arms, joint training at Theater Commands and get better the situation for networked, simulated, and force-on-force training; and
- To Support different assignments, include the United Nations Peace Keeping Operations UNPKOs, disaster relief efforts, humanitarian assistance operations, and vessel protection operations in high seas.

From 2010 to 2022, China's defense spending augmented from $76.5 billion to $230 billion (for details, see figure 3). China's governmental expenditure and GDP raised at average rates of 10.43 percent and 9.04 percent respectively, while its military spending raised by an average of 9.42 percent. On average, government spending on defense accounted for 5.26% of total spending and 1.28% of GDP. China's defense spending as a proportion of GDP climbed in line with government spending, but stayed stable (Bommakanti & Kelkar, 2023). China induces firm mechanisms of budget management and allocations on its defense spending. It pursues a demand-oriented

defense expenditure that is planning-led and harmonious with its capability (Erickson, 2019). China's defense forces are rapidly standardizing defense expenditures, restructuring the centralized collection and payment of military money, and improving the administration of funds and assets in order to fortify and enhance budget management.

Figure 3: China's Official Defense Budget in US$ billion (2010-2022)

Data Sources: White Paper "China's National Defense in the New Era 2019" and official national defense budgets
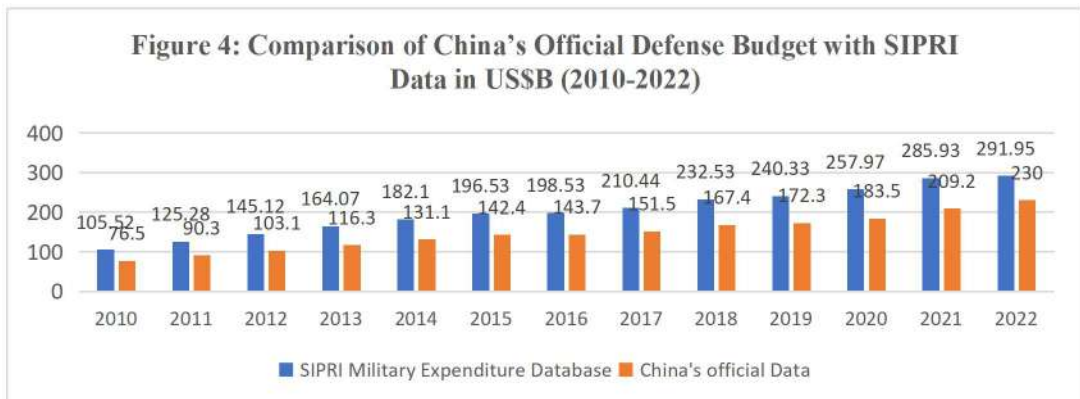
SIPRI Estimate of Chinese Military Expenditure

The Stockholm International Peace Research Institute (SIPRI) assessed a number of supplementary elements outside of China's official national defense budget and approximated the country's military spending. The SIPRI estimation of China's defense expenditure is fabricated principally of five additional spending categories i.e.

- The People's Armed Police (PAP),
- The China Coast Guard,
- Additional military research, development, testing and evaluation spending,
- Additional military construction expenditure, and
- Payments to demobilized and retired soldiers (Tian, 2021).

According to the SIPRI report, in 2019 alone, these added expenditure categories accounted about 27 percent of total estimated Chinese defense expenditure. The additional largest item is R&D and T&E expenditure, which amounted 10 per cent or $25.0 billion of the total defense spending. Furthermore, pension payments, retirement, and demobilization were the second largest item at $20.3 billion, 8.4 per cent of the total defense spending. Whereas, The PAP expenditure was $17.9 billion, which was the third largest item accounted for 7.4% of the total (Tian 2021).

Meanwhile in 2019, the China Coast Guard spending was estimated to have been $1.6 billion, 0.7 per cent of the total. While spending on other military construction was estimated $14 million, less than 0.01% of the total defense spending. According to SIPRI data, China continues to be the world's second-largest military spender, behind the United States, with expenditures that are about three and a half times more than those of India, the next-largest spender. According to SIPRI, China's defense expenditure in 2022 as a share of its GDP was 1.6 per cent. While, its defense expenditure as compare to its governmental expenditure decreased from 5.4 per cent to 5.0 per cent. According to the SIPRI data, from 2010 onward, China's defense spending augmented from $105.5 billion in 2010 to $291.95 billion in 2022 (SIPRI, 2022) (for details, see figure 4).

Figure 4: Comparison of China's Official Defense Budget with SIPRI Data in US$B (2010-2022)

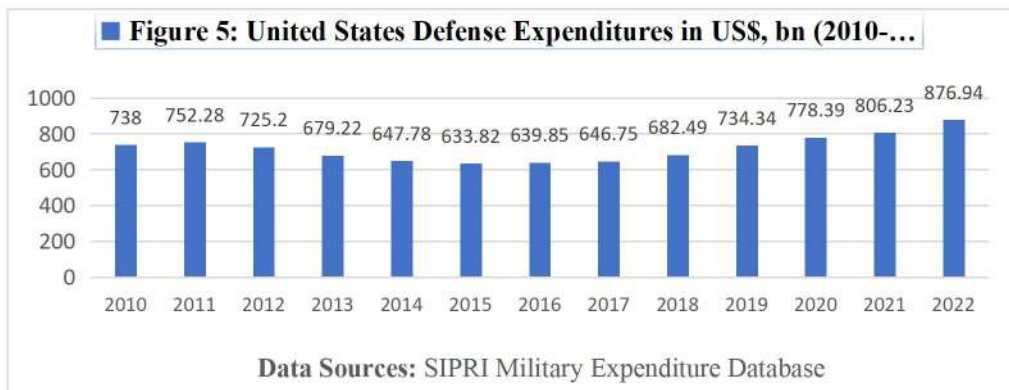SIPRI Military Expenditure Database   China's official Data
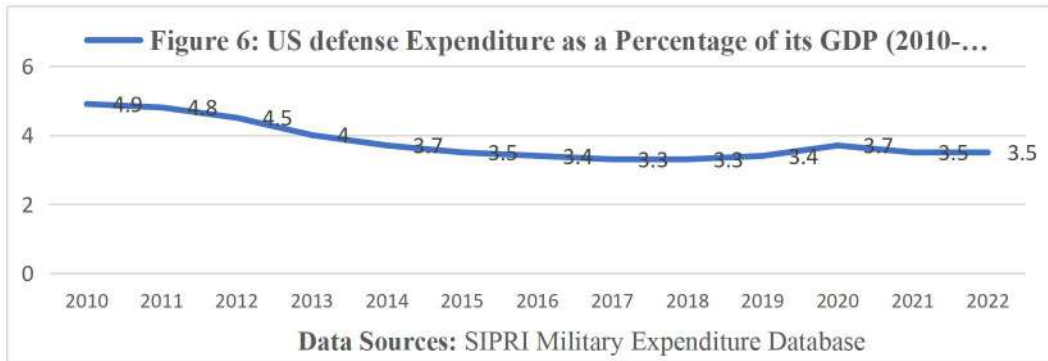
The United States Defense Expenditures

For the United States, security challenges that were once considered developing are now becoming a reality. Early in 2023, a Chinese high-altitude surveillance balloon crosses over before being shot down by a US Air Force (USAF) F-22 Raptor aircraft. Additionally, there was a joint naval drill conducted by Russia and China in international waters near Alaska, highlighting their increasing activity in Arctic waters (Begum & Khan, 2023). These events add to Washington's expanding national security agenda. This agenda includes initiatives to modernize its defense forces, foster strong relationships with European and NATO allies, and enhance its presence and partnerships in the Indo-Pacific region (IISS, 2024, p. 18). Furthermore, The Biden administration has significantly contributed to global support for Ukraine for the second consecutive year. Since February 2022, the US has furnished over $44 billion worth of equipment's. This assistance includes Patriot air and missile defense systems, mine-clearing tools, and unmanned aerial vehicles (UAVs) (Penzenstadler, 2023).

Hence, Lloyd Austin, the US Secretary of Defense, highlighted that the National Defense Strategy (NDS) demarcates the Department of Defense's trajectory for the upcoming crucial decade. This path encompasses safeguarding the American people, fostering global security, capitalizing on new strategic openings, and upholding and safeguarding democratic values. Therefore, the implementation of National Defense Strategy remained his top priority; while, the Pentagon was also working to sustain military readiness(Gunzinger & Autenried, 2021). The United States defense spending in 2023 was $905.5 b. it was the seventh consecutive year in which the US defense expenditures have been grown after uninterrupted real-terms reductions amid 2010-2017 (IISS, 2024). Post-2018 increases in military spending attributed to R&D and accomplishment of numerous long-term projects for example the large-scale arms procurement and the modernization the US nuclear arsenal ((DoD), 2020).

in recent years, The US top strategic competitor, China is the main drivers behind the increases in US defense expenditures because it is an apparent threat to the US hegemonic status around the globe (Amadeo, 2020). Therefore, with a projected military budget of $905.5 billion in 2023, the United States continues to be the top military spender in the world, making up 40.5% of the global total military spending (IISS, 2024, p. 18). The US spending on weapons procurement and research and development R&D alone were larger than China's total defense budget (Béraud-Sudreau, 2020). Therefore, the US spent approximately as much on its military as the remaining 15 largest spenders collectively. The US spent 3.7% of its GDP in 2020 on its defense, up by 0.3% from the previous year (SIPRI, 2023). The US has boosted its military spending in response to China's ascent, mirroring its historical containment strategies against past rising powers in the 20th century like Imperial Japan, Imperial Germany, Nazi Germany and during the cold war against the USSR. China represents the most significant geopolitical challenge for the US in the 21st century (Mearsheimer, 2010), and containment measures will likely be implemented accordingly.

Moreover, the US maintains its top spender status primarily because its dominance relies on two interconnected factors. Firstly, the US champions and drives the global capitalist economic system, which inherently bolsters its economic standing and influence. Secondly, the American military might, that reinforces its position by projecting power and deterrence globally. Together, these two elements form the backbone of American hegemony, ensuring its continued prominence on the world stage (Ikenberry, 1989). Whereas, China's emergence as a formidable competitor poses a significant threat to both pillars of American hegemony. Economically, China's rapid growth challenges the dominance of the US-led capitalist system (Layne, 2008), while its expanding military capabilities directly challenge American military might (Friedberg, 2018). Therefore, in addition to maintaining its status as the top spender, the US faces the imperative to address and counter the growing influence of China on both economic and military fronts to safeguard its hegemonic position.


Figure 5: United States Defense Expenditures in US$, bn (2010-…

Data Sources: SIPRI Military Expenditure Database

Figure 6: US defense Expenditure as a Percentage of its GDP (2010-…

Data Sources: SIPRI Military Expenditure Database

Comparison of SINO-US Defense Expenditure (2010-2022)

Comparatively to US defense spending, China's defense spending is comparatively low both as a proportion of GDP and as a percentage of total government spending. In terms of total defense expenditures, China in 2021, expends on its defense only 26 percent of the US total defense spending, which is about a quarter of the US defense expenditure. In terms of defense expenditure, China ranks second in the world, whereas the US is the top spender in the world. Comparatively speaking, since 2010, China has averaged spending 1.3 % of its GDP on defense, whereas the US has spent 3.81 %. Furthermore, Russia spends 4.4 percent of its GDP, India 2.5%, France 2.3%, the UK 2.0%, Germany 1.2% and Japan 1.0%. China is the least spender among all permanent member of the UNSC and ranks sixth worldwide in terms of defense spending as a percentage of GDP.

From 2010 to 2022, China's average defense spending as compare to other governmental expenditures are 5.15 per cent, although, the US defense expenditure in the same time was 9.8 percent of its governmental expenditures. Furthermore, Russian expenditures was 12.4%, India spent 9.1%, United Kingdom's 4.8%, France 4.0%, Germany 2.8% and Japan 2.5%. Therefore, China is the 4th largest spender as a proportion of other governmental spending. At the moment, China's economy is the second biggest in the world. China's national security demands, therefore, dictate how much the country spends on defense. The growing size of Chinese economy also dictates it. Furthermore, the figure 7 illustrates the enduring dominance of the US in terms of defense expenditures juxtaposed with the constant growth of China's military budget.

Figure 7: Comparison of Sino-US Defense Expenditure in US$ bn (2010-2022)

■ US Defense Budget ■ China Defense Budget
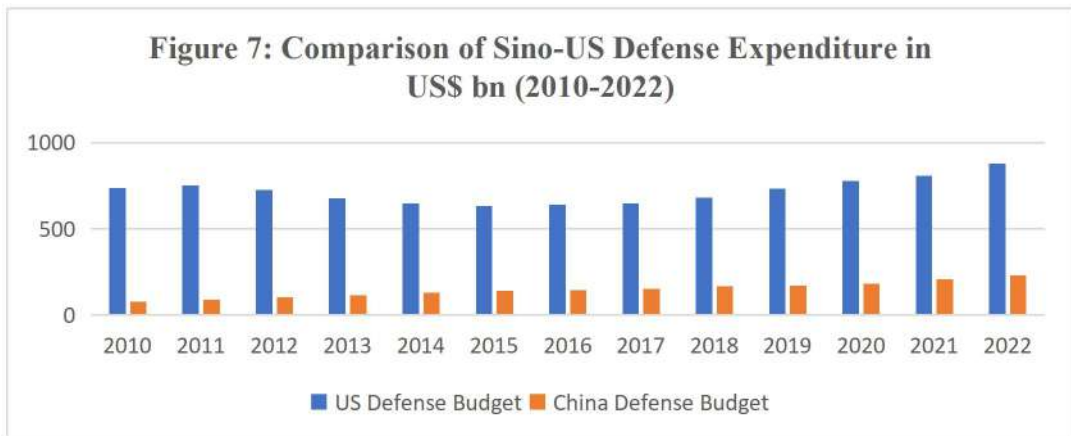
Strategic Implications
Military Capabilities

Grasping the subtleties of defense expenditure and its ensuing influence on the military prowess of major global entities such as China and the US requires an in-depth exploration into their respective military financial allocations and strategic focuses. As per the SIPRI reports, in 2022, the US and China emerged as the foremost two nations concerning military spending, with the US allocating $876.94 billion and China allocating $291.95 billion (SIPRY, 1949-2022). This substantial financial commitment to defense not only bolsters their military capabilities but also signifies a strategic intent to sustain and enhance their global military dominance and strength (Freeman & Solmirano, 2014). The distribution of these resources, which are employed for technological progression, personnel training, and the development of strategic military infrastructure, crucially molds the military capabilities of both countries, thereby impacting their strategic and tactical military maneuvers on the international arena.

Global Power Dynamics

The arms competition, especially between predominant powers such as the US and China, consistently exerts a significant influence on global power dynamics, affecting alliances and molding international relations. The amplification in military expenditures and advancements in military technology frequently result in a reconfiguration of power structures and alliances on the global platform (Futter, 2016). For example, the US's strategic realignment towards Asia and its focus on fortifying alliances with nations like India, Japan and Australia can be interpreted as an effort to counterbalance China's ascending military might and sway in the region. Consequently, the arms race not only impacts the bilateral relations between the US and China but also infiltrates the wider global power structures, forming alliances and strategic collaborations throughout the international community on the larger geo-political chessboard.

Regional Impacts

The arms race, in addition to shaping global power dynamics, also significantly impacts regional stability and security, especially in the Asia-Pacific region. The enhancement of China's military capabilities and its bold maneuvers in the South China Sea have elicited concerns among neighboring nations and bear consequences for regional stability (Fravel, 2011). Likewise, the strategic alliances of the US and its military presence in the region also sway the security dynamics and could potentially affect the strategic decisions of other regional players. Consequently, the arms race emerges as a pivotal element that not only affects the bilateral relations between major powers but also molds the security and stability of the wider region, influencing the strategic considerations and policies of other nations within the Asia-Pacific. The resurgence of new great power competition and arms buildup between the US and China on the global level will trigger the arms race at the regional level too. In the Asia-Pacific region, countries as diverse as Japan, South Korea, Taiwan, Vietnam and other South East Asian States are increased their defense expenditures and arms buildup (Tan, 2024). In the meantime, Japan is reinforcing the country's military might. Japan will spend $56.7 billion in FY 2024 on defense amid the increasingly tense security environment in the Indo-Pacific region. The budget increased by 16.5 percent, amounting to $7.93 billion (1.13 trillion yen) more than the previous fiscal year. This represents a record high for Japan's defense budget for the tenth consecutive year.

Furthermore, Taiwan also plans to boost its military spending and arms acquisition amid increased tensions with China. Taiwan raised its defense expenditure from 1.8% of GDP in 2016 to 2.5% of GDP in 2024. Taiwan announced a record defense budget of NTD $606.8 billion (approximately USD $19.1 billion) for FY 2024 (Gomez, 2023). Taiwan is facing challenges in sourcing military equipment from foreign suppliers, with the US being its primary source of armaments. Analysts suggest that the US is significantly arming Taiwan with the aim of deterring China's influence. Furthermore, North Korea's Kim Jong Un is aiming for a major buildup in his nation's nuclear weapons stockpile starting in 2022, which is located a thousand miles north of Taiwan. Kim is building a fleet of formidable mobile rocket launchers that can deliver a nuclear warhead to any location in South Korea. According to the Korea Institute for Defense Analyses, Kim's plan may lead to the development of 300 nuclear bombs in the near future, which would be a significant improvement over the 2022 projection that he only had 20 assembled nuclear weapons (Lendon, 2023).

This development could potentially place North Korea ahead of the US and France in terms of nuclear stockpile, trailing only behind Russia, the US, and China according to SIPRI's rankings. As a result, he possibility of South Korea developing its own nuclear arsenal has been raised. To reassure its ally, the US has affirmed its unwavering support for South Korea, promising to utilize a comprehensive range of defense capabilities, including nuclear, conventional, and missile defense, if necessary. And so, the cycle continues. It is a significant competition in Asia-Pacific, featuring three prominent nuclear powers alongside a rapidly developing one, the world's leading economies, and long-standing alliances all striving for an advantage in highly disputed land and sea regions. On one side, there is the United States with its allies Japan, Taiwan and South Korea as opposed to China in collaboration with Russia and North Korea.

Economic and Social Implications
Economic Impact

The economic repercussions of considerable defense expenditures by countries, especially globally influential ones like the US and China, are complex and infiltrate various facets of their individual economies. Hartley (2011) notes that defense spending can harbor numerous economic consequences, encompassing impacts on employment, economic growth, and fiscal equilibrium. For example, the US Department of Defense was identified as the world's largest single employer in 2015, highlighting the employment ramifications of defense expenditures (Hussain, 2019). Conversely, China's defense spending, which has been on a consistent upward trajectory, is

perceived as a mechanism to further its global strategic ambitions and bolster its domestic military-industrial complex (Cheung, 2013). Therefore, while defense spending fuels economic activity and can serve as a catalyst for employment and technological progress, it also signifies a considerable distribution of resources that could be deployed in other sectors.

Social and Political Impact

The arms race and related military expenditures not only bear economic consequences but also markedly impact the social and political terrains within countries. The militarization of national financial plans frequently entails social compromises, potentially redirecting resources away from social domains such as health and education, which can have enduring effects on social progression (Dunne et al., 2005). On the political front, significant military spending and a focus on military capabilities can sway national priorities, policy formulation, and even the political dialogue, often becoming entwined with matters of national security, patriotism, and international politics.

Opportunity Costs

Examining the economic and social repercussions of defense expenditure requires a scrutiny of the opportunity costs entailed in dedicating significant resources to the military sector. The "guns vs. butter" model exemplifies the trade-off between a country's spending on defense and civilian commodities (Brauer & Dunne, 2004). The resources devoted to defense spending could alternatively be invested in different sectors, such as education, healthcare, and infrastructure, which might have varied outcomes for economic expansion and social evolution. In the context of comprehending opportunity costs, it is crucial to analyze the potential advantages and compromises related to alternative resource allocations. According to the budget document of the US government FY 2024, the Department of Defense (DOD) has requested $842 billion in discretionary budget authority for FY-2024, marking a $26 billion or 3.2-percent increase from the 2023 enacted level. Conversely, other governmental sectors have put forth their own budget requests: the Department of Agriculture (USDA) seeks ($30.1 billion), the Department of Commerce requests ($12.3 billion), the Department of Education (ED) requests ($90 billion), the Department of Energy (DOE) requests ($52 billion), the Department of Health and Human Services (HHS) requests ($144 billion), the Department of Homeland Security (DHS) requests ($60.4 billion), and In order to provide sustainable, safe, healthy and inclusive communities and inexpensive housing for all, the Department of Housing and Urban Development (HUD) has requested $73.3 billion in discretionary budget for FY-2024 (The White House, 2023).

Meanwhile, a notional 7.2% increase from the 2023 budget, China's 2024 defense budget was set at RMB 1.7 trillion ($231 billion). In addition to defense spending, China allocated funds to other governmental sectors, including debt payments ($108 billion), diplomacy ($8.4 billion), education ($22.9 billion), public security ($31.6 billion), and science and technology ($51.5 billion) (Ministry of Finance, 2024). These allocations offer insights into both nations' spending priorities and fiscal landscapes. The significant allocation of resources to defense underscores the potential trade-offs with investments in critical sectors like education, healthcare, housing, and infrastructure, suggesting a need for strategic balance and allocation considerations in government budgeting.

Case Studies
Technological Advancements

The growing arms race has been significantly influenced by military technical advancements, particularly between major powers like China and the United States. The arrival of the F-35 Lightning II, an advanced multi-role stealth fighter, by the United States has significantly strengthened its air superiority (O'Rourke, 2010). Meanwhile, China's missile development, particularly the DF-21D, dubbed the "carrier killer," has enhanced its capabilities to constrain adversary movements and changed the strategic landscape in the Asia-Pacific region (Heginbotham et al., 2015). Such improvements not only improve each nation's military strength, but also affect strategic outlooks, threat assessments, and the larger dynamics of the arms race.

Conflict and Cooperation

The US and China have experienced both conflict and cooperation, with their military capabilities having a major impact on both. A prominent instance of a confrontation that resulted in heightened diplomatic tensions between the two countries is the 2001 EP-3 incident, which included a mid-air collision between a People's Liberation Army Navy (PLAN) J-8II fighter jet and a US Navy EP-3E ARIES II signals intelligence plane. (Rosenthal & Sanger, 2001). Furthermore. The destruction of a Chinese spying balloon by a US fighter jet sparked a diplomatic crisis between the two nations. The incident occurred over US airspace on February 5,2023 leading to

condemnation from the Chinese Foreign Ministry. Despite explanations from the White House about the precautionary measures taken, the prolonged delay in ordering the strike fueled criticism and heightened tensions. The situation escalated as China defended the balloon's purpose while US authorities insisted it was engaged in espionage, leaving both countries entangled in conflicting narratives and strained relations (Zhao, 2024). In contrast, cases of cooperation have been observed, such as the anti-piracy operations in the Gulf of Aden, where the navies of both countries cooperated to combat piracy, demonstrating that shared security concerns and common interests can facilitate cooperation in broader strategic competition (Erickson & Strange, 2013). Thus, the politics and military capabilities of both China and the United States had a significant impact.

Future Trajectories
Potential Scenarios:

The forthcoming paths of the China-US arms race, considering the prevailing trends, unveil a variety of possible scenarios spanning from ongoing strategic rivalry to potential conflict or collaboration. As per the U.S. Department of Defense's 2020 China Military Power Report, there is a notable augmentation in China's military capabilities, with progress in domains such as missile creation, naval assets, and cyber warfare capabilities, thereby presenting numerous challenges to U.S. strategic interests both in the Indo-Pacific region and worldwide ((DoD), 2020). Conversely, scholars, including Friedberg (2018), have delineated potential scenarios that encompass an escalated arms race, unintended conflict arising from miscalculations, or a cold peace defined by persistent competition devoid of direct conflict.

Risk Mitigation

Minimizing risks and averting escalations in the China-US arms race require a comprehensive strategy that includes diplomatic, military, and confidence-building actions. The establishment and preservation of open communication channels, the creation of mechanisms for crisis management, and the execution of confidence-building measures, such as military-to-military exchanges and agreements on behavior in disputed areas like the South China Sea, are vital (Medcalf et al., 2015). Additionally, participating in dialogues aimed at forming mutual comprehensions on strategic matters and investigating possible arms control measures could also act to diminish risks and avert unintentional escalations (Khalilzad & Shapiro, 2002).

Cooperation Opportunities

Even amidst the predominant strategic rivalry, there are pathways for military and strategic collaboration between China and the US, especially in domains where their interests align. Spheres like counter-terrorism, nuclear non-proliferation, and maritime security, especially in tackling non-traditional security threats such as piracy, offer opportunities for cooperation (Kirchner et al., 2016). Involvement in cooperative initiatives in these spheres could not only address mutual security issues but also potentially foster trust and create mechanisms for dialogue and cooperation that could prove advantageous in navigating the wider strategic competition.

Conclusion

The global defense expenditure landscape has dramatically altered over the past decades, reaching a historic high of $2240 billion, where The US and China dominate the arena. The US has retained its position as the world's biggest defense spender, while China raised its defense expenditures uninterruptedly for three decades. China's rise in defense capabilities has developed a unique geopolitical situation, prompting an arms buildup across the Asia-Pacific region among countries like Japan, South Korea, Vietnam, India, and Australia. This phenomenon reflects an active action-reaction dynamic in Asia, driven by mutual suspicions and strategic rivalry, particularly between the US and China. In 2023, The US accounted for almost 40.5% of total global defense spending and continues to invest heavily in defense (Internal Balancing) to counter the perceived threat from China. Furthermore, The US is reinforcing alliances such as the Quad and AUKUS (External Balancing) and increasing its military presence in the Indo-Pacific region. Despite China's defense spending being a smaller portion of its GDP as opposed to the US, its rapid modernization of PLA and advancements in various military domains are outstanding. Both the US and China investing heavily in upgrading their nuclear arsenals, bombers, submarines, and developing advanced weapons systems such as hypersonic missiles and anti-satellite weapons. These advancements have significant geopolitical implications, as they could potentially shift the balance of power on Earth. China's rapid increase in military expenditures, coupled with President Xi's ambitious plans to fully modernize the armed forces, signals a desire to assert itself as a global superpower equal to the US militarily. Meanwhile, the US, under both the Trump and Biden administrations, has continued its arms buildup, committing substantial resources to upgrading its nuclear capabilities and maintaining its military superiority. The rapid progress on both sides indicates a dangerous escalation in tensions, raising concerns about the stability and security of the international order. in a nutshell, The US remains the foremost military power, but the strategic rivalry with China is intensifying, driven by uncertainties and defensive actions that fuel an ongoing arms race. These dynamic

underscores the critical need for dialogue and confidence-building measures to mitigate the risks of conflict and ensure stability in the international system.

In a future scenario shaped by heightened Sino-US relations and an arms race, the geopolitical landscape may become increasingly volatile. Both countries have significantly increased military spending until 2035 to achieve technological advances in AI-powered weapons, hypersonic missiles and space defense systems. The competition extends into space, deep-sea, cyberspace and other emerging war domains with frequent and sophisticated cyberattacks disrupting critical infrastructure globally. In the Asia-Pacific region, countries like Japan, Taiwan, North Korea, South Korea, and India have expanded their military capabilities in response, creating a multi-layered regional arms race. The South China Sea becomes a flash point for frequent naval clashes, and tensions around Taiwan escalate where both the US and China perform provocative military exercises. Economically, heavy defense expenses leading to higher national debt and reduced costs for social security, which exacerbates domestic inequalities. As both forces are trying to provide key resources and technologies, the global supply chain has become increasingly common, causing financial turmoil and stopping trade. Moreover, from a diplomatic point of view, traditional alliances, such as NATO, Quad, AUKUS have been strengthened, and the Chinese Belt and Road Initiative (BRI) has created a new alliance. However, arms control treaties have been dismantled and undermined by mutual mistrust and rapid technological development, making new agreements difficult to achieve. Furthermore, the international community faces a polarized world in which geopolitical competition overshadows cooperative efforts to address global challenges such as poverty, environmental degradation, climate change and pandemic preparedness. This situation highlights the far-reaching implications of Sino-US relations and the international community at large. The arms race affects global security, economic stability and international relations.

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From Earnings to Occupations: Understanding Intergenerational Mobility in Turkey

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The studies analyzing intergenerational economic mobility have been rather scarce for developing countries due to unavailability of longitudinal datasets. This study uses data from Survey of Income and Living Condition (SILC) from 2006-2021, obtained from Turkish Statistical Institute to analyze the intergenerational income and occupational mobility in Turkey. Besides measuring the dynamics of income and occupational mobility across generations, we also analyze how does the association of children socioeconomic outcome with their family background vary at different career levels of children. Our findings reveal that the association with parents income is much higher for daughters as compared to sons suggesting daughters outcomes are more explained by their family socioeconomic status. Regarding the association of children' outcome with family status at different career stage, the relationship is stronger when children are at the mid-career level. The Bayesian methodology and Pseudo-panel fixed effect model has been employed to estimate intergenerational income elasticity and for the rest of the analysis, Bayesian methodology has been utilized. Our finding also reveals higher intergenerational occupational persistence among children in higher income families while children from disadvantaged families have higher probability of switching career upon receiving good education and income perspective.

Keywords: intergenerational income/occupation mobility, inequalities, household income, Bayesian modeling
JEL Classification : J62, D1, D3, C11

For the fair earning distribution, one's wage should not be determined based on family background. The studies analyzing transfers of economic outcomes across generations focuses on why inequalities exist and the extent of it. Intergenerational economic mobility is a crucial element in the fair distribution of opportunities. Many studies are available focused on intergenerational economic mobility and its various aspects for many countries mostly, developed economies. However, Turkey still lacks such studies to understand the share of inequalities caused due to the transfers of economic/social outcomes across generations.

The research targeted on the transfer of socioeconomic status across generations are to understand the dynamics and factors affecting economic mobilities, to eradicate economic inequalities, and to promote welfare and equality. Higher intergenerational immobility shows persistence of socio-economic status across generations which is caused due to unequal opportunities and disproportion family resources instead of differences in individuals' effort and diligence: higher intergenerational economic persistence could indicate poor allocation of human capital resources. The children coming from disadvantaged family backgrounds might perceive the odds of being successful/ jumping up on the ladder of socio-economic class are caused against them and that could result in the less cooperation in the society (Mogstad & Torsvik, 2023).

Intergenerational income earning elasticity (IGE) is the most frequently metric used to assess the association between children' and fathers' income and other economic opportunities. However, the studies using IGE for the analysis of IGM has mostly been done for developed countries (Solon, 2002), (Chetty, Hendren, Kline, Saez, 2014a), (Chetty, Hendren, Kline, & Saez, 2014), (Cervini-Plá, 2015), (Corak et al., 2014)). Most of this literature targeted the developed economies; developing economies have been ignored so far mainly because of the unavailability of the data required to examine intergenerational economic mobility and its dynamics.

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The literature on the transmission of economic/social outcomes to the next generation that exists in Turkey, is focused on intergenerational education mobility because of the unavailability of long panel data on households' income. Consequently, Turkey lacks comprehensive studies on intergenerational mobility. The studies conducted on intergenerational mobility include Mercan (2012), Mercan and Barlin (2016) and Duman (2021) which have biased results due to either use of household budget survey or insufficient data used for the analysis. However, a recent study by Demirtaş and Torul (2023) analyzes the intergenerational income mobility in Turkey using Survey of Income and Living Condition Survey (SILC) and TS2SLS methodology- the intergenerational earning elasticity is 0.51 among fathers-sons and 1 among fathers-daughters' pair according to their study which is same as like our study. The elasticity is similar to many other developing countries: between 0.44 & 0.5 in Indonesia (Adli & Sahadewo, 2023), 0.63 in China (Gong, Leigh, & Meng 2012), 0.57 in Soth Africa (Piraino, 2015).

Our paper aims to study this strand of the literature by analyzing intergenerational income and occupational mobility in Turkey, analyzing how these elasticities varies at different career levels of the children. To achieve our objectives and make the best use of the rotational panel data available for Turkey, we would use pseudo panel data (fixed effect) and Bayesian methodology to estimate intergenerational mobility. We use microdata Survey of Income and Living Conditions from the Turkish Statistical Institute (TUIK). The data is cross-sectional data covering the period of 2006-2021, consisting of four survey waves: 2006-2009, 2010-2013, 2014-2016, and 2017-2021. Intergenerational mobility studies require long panel datasets, which helps developing countries to have a comprehensive analysis of intergenerational mobility studies. We will use cross-sectional data and make a pseudo panel to estimate IGE, and make cohorts in pseudo panel settings without taking averages for Bayesian analysis. We switched to Bayesian for the analysis because averages from the pseudo panel do not represent the population well. This research is the initial attempt to analyze intergenerational earning and occupational mobility using Bayesian methodology in Turkey as per our knowledge.

Our study focuses on the following questions:

- How does the association among parental and children income vary across different income groups? Is this association stronger when a father is on the higher wage distribution?
- Does educational attainment mediate the relationship between parental economic outputs and offspring's economic outputs?
- What's the trend of Occupational Persistence in Turkey among different economic groups? Is occupational persistence higher for the children whose fathers are on the higher wage distribution?

By answering these questions, we shed light on the impact education, gender and marital status has on children's earnings in Turkey, also we look at the dynamics of intergenerational income/occupational mobility.

Next section presents a literature review, followed by section 3 which outlines the data and methodology, while section 4 offers a discussion of the findings, section 5 is cohort analysis for robustness check and section 6 concludes the paper.

Literature Review

Recently, there has been a significant rise in the research on the empirics of intergenerational economic mobility. Solon (1992) addresses the biases and measurement errors present in early empirical studies in his seminal paper, proposing a standard methodology for accurately estimating intergenerational income persistence which led to methodological advances and improved data availability, comparable estimates have recently become available for several developing countries (Narayan et al., 2018). Our study is motivated by the lack of such estimates for Turkey.

Turkey lacks research on income intergenerational mobility studies and has mostly focused on education mobility rather than income due to the lack of suitable longitudinal datasets on sons & parents' income. On the literature of intergenerational education mobility, Tansel (2015) utilized TurkStat's Adult Education Survey (AES) and demonstrated that the educational background of mothers plays a more significant role compared to that of fathers, and the association between children and parent's education attainment is pronounced when parents' educational qualification is below primary level. The study by Öztunalı and Torul (2022) investigated both ordinal and cardinal metrics of intergenerational educational mobility using the Intergenerational Transmission of Disadvantages Module of SILC in 2010. Their findings show that educational mobility observed in Turkey lower than that of the developed countries. Aydemir and Yazıcı (2019) explored the difference in intergenerational educational mobility across various regions in Turkey, revealing a positive association among educational mobility and regional development.

The literature on the intergenerational income mobility for Turkey is limited. Mercan (2012) estimated intergenerational income mobility and reported the mobility elasticity in Turkey to be 0.1 which is very low as compared to other developed countries, concluding Turkey to be a very mobile country. Still this study didn't use longitudinal data thus the results could be biased. Mercan and Barlin (2016) estimated intergenerational income elasticity using the Survey of Income and Living Condition (SILC) data set and employed OLS and IV estimation techniques and found intergenerational income elasticity to be between 0.3 and 0.6, which is much higher than the previous study done for Turkey. Another study for Turkey was done by Duman (2021), using Household Budget Survey data for the period between 2003 and 2011, and found a mobility correlation in the range of (0.10, 0.51) for sons and (0.17, 1.00) for daughters. The most recent study which is done by Demirtaş and Torul (2023) for the period of 2005-2017 using TS2SLS for SILC data, found the intergenerational earning elasticity to be 0.51 among fathers-sons and 1 among fathers-daughters' pair. Our paper provides the first insights into the empirical transmission of income between generations using Bayesian approach utilizing the most recent data available, contributing to a better understanding of Turkey's intergenerational mobility. This study complements previous research on the topic.

Our finding suggest that Turkey intergenerational income mobility dynamics are similar to the ones in other developing countries. Adli & Sahadewo, (2023) analyzes intergenerational income mobility for Indonesia using Indonesian Family Survey and found the intergenerational income mobility to be between 0.44 & 0.50. The coefficient around 0.5 shows that there are barriers exist in the economy affecting children mobility, where children' outcome is dependent on their family economic background.

A key aspect of social mobility- which is required because of the innovation brought about by industrialization—is occupational mobility. New income and occupation opportunities are being created due to recent developments in education, communication, technology, and urbanization (Treiman, 1970). However, structural change can often be slow because younger generations may need to change careers (generational occupations) to find work, and their parents may not be able to provide adequate guidance due to their experience in a different working environment.

Economists and sociologists, both, have been investigating the dynamics of occupation mobility as a form of social mobility followed by the seminal contribution of Blau and Duncan (1967) and (Erikson & Goldthorpe, 1992). Andrade et al., (2003) found that borrowing constraints significantly impact intergenerational transfers. If parents are unable to access loans, their ability to invest in their children's human capital is limited, which in turn reduces intergenerational skill transfers. Removing parents' borrowing constraints leads to an increase in investment in their children's human capital, resulting in higher educational levels and abilities. According to Tyree et al., (1979), children often aspire to careers in the same occupational group as their parents and mostly end up working at the same workplace as of their parents in the start of their career.

The literature has examined various factors affecting occupational mobility. Ermisch and Francesconi (2002) investigated the impact of the social status of the parents of married couples on their socioeconomic mobility for the British Household Survey. Their findings suggest that men were influenced by their own parents with a correlation of 0.2, and by their spouses' families with a correlation ranging from 0.17 to 0.25. Women, on the other hand, were influenced by their parents with a correlation ranging from 0.17 to 0.23, and by their spouses' parents with a correlation ranging from 0.16 to 0.18. Bean and Swicegood (1979) stated that ineffective family planning leads to lower social mobility, this conclusion is supported by Corak and Piraino (2010). Hellerstein and Morrill (2011) reported that a girl's career choice is more influenced by her father's occupation than her father-in-law occupation which leads to the conclusion that there is an increase in the transmission of intergenerational occupation-specific human capital.

Carmichael's (2000) study on intergenerational mobility in the UK demonstrates that the success of a generation is dependent on the success of the previous generation. Farid & Abbasi (2020) study's finding for Pakistan suggest that persistence of economic class across generations is more common in children coming from high-income family because they have the resources to have more or maintain the opportunities. Motiram and Sing (2012) found a significant lack of occupational mobility in India, particularly among those in low-skilled and low-paid jobs.

Children's occupational choices and thus mobility can be explained by parents' socio-economic status, e.g., 40.5% children of university graduate parents are high skilled while only 11% of children, whose fathers

completed high school, worked in jobs that required high skills. Generally, the longer children and parents spend in school, the higher the probability of entering occupations with a higher social status (Andrade et al., 2003). Hellerstein and Morrill (2011) found that 30% of men and 20% of women followed their fathers. These findings were supported by Ermish and Francesconi (2002), Di Pietro and Urwin (2003), and Ferrie (2005). Our study also focuses on the occupational mobility, besides investigating the dynamics of income mobility for Turkey.

Method

We use survey of income and living conditions (SILC) data from 2006-2021, it is a rotational panel data which tracks individuals for maximum of four years. We use cohorts for analysis based on career level to better understand the impact of family income at different career stages of children. The cohorts are made by grouping children based on age: the 26-35 age group is considered to be at the beginning of their career level, the 36-45 age group is considered to be at the mid-career level, and the 46-55 age group is considered to be at the peak of their career level. Before the analysis, it's better to look at the descriptive statistics of the data. Table 1 shows descriptive statistics of the data. Descriptive statistics have been given for whole sample and also for children being at different career stages. The descriptive statistics has been reported for children who have non-zero wage and between the age 26-55. Fathers earning represent the household earnings, and it could represent mothers earning as well if the household is a mother.

Table 1
Descriptive Statistics

Variables	Full Sample		Beg. of Career		Mid-career-level		At peak-career level	
	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.
Children Earnings	9.266	1.052	9.375	1.024	9.167	1.059	9.042	1.142
Father Earnings	9.915	0.887	10.022	0.868	9.717	0.892	9.642	0.897
Education	3.702	1.521	3.809	1.522	3.630	1.548	3.413	1.566
Marital Status (1=single, 0=otherwise)	0.613	0.486	0.691	0.461	0.465	0.498	0.406	0.491
Gender (1=male, 0=otherwise)	0.680	0.466	0.688	0.463	0.676	0.467	0.626	0.4838
No. of obs	11651	11651	6709	6709	3993	3993	949	949

Notes: the data has been taken from SILC.

Pseudo Panel Data

Panel data, which entails both time series and cross-section dimensions, are widely recognized to be advantageous when used for empirical research. However, due to the cost it takes to follow the same individual over time, panel data might not be available in many settings, unlike the cross-sectional data which is more commonly available where each wave observes a different set of individuals. Those individuals could be grouped in cohorts based on some common characteristics that don't change over time, such as birth year, gender, etc. Then, the mean of these cohorts is treated as if they are observations of an actual panel. Pseudo-panel has various benefits over panel data set with a smaller sample set, at the same time cross-sectional datasets are the better representative of the population e.g., household surveys, health and demographic surveys. The averaging process involved in creating pseudo-panels diminishes measurement error at an individual level, which is very common in survey data.

Many developing countries lack panel data to study intergenerational mobility where specific households are followed over time. This study uses rotational panel surveys to analyze intergenerational dynamics in Turkey using data from **TUIK,** the survey has four waves 2006-2009, 2010-2013, 2014, 2017, and 2018-2021. To find intergenerational earning elasticity, panel data is required- so we will use the available cross-sectional data under some assumptions to treat it as panel data. In a pseudo-panel setting, we will follow cohorts instead of following households. From each cohort, successive random samples will be produced via the surveys. A time series gets generated from these random samples' summary statistics which can be used to predict behavioral relationships for the cohorts, just as if the panel data was available. In the following paragraph, the construction of such a cohort and its use for the estimation of intergenerational earning elasticity has been discussed in detail.

Our primary concern about using a pseudo panel is that the sample means of each cohort might not be the actual representation of the whole cohort population means. Usually, a cell size (the number of individuals in a

cohort) of 100 might be sufficient to reduce sampling error (Verbeek & Nijman, 1992). This leads to our following methodology, which we will be using for our analysis.

Bayesian Estimation:

The Bayesian approach has the following form for the general panel data model, which has been used by Carrington and Zaman (1994).

$$Y_{it} = X_{it}\beta_{it} + \varepsilon_{it}$$ (1)

Where Y is dependent variable representing children of different age groups 26-35 shows children at being the early career level, 36-45 shows children being at the mid-career level and 46-55 is for the children being at the peak of their career level. In our study X is independent variable, t number of time period and t=1, 2, ----, T, i is the number of age groups i.e. i=1, 2 and 3 in our study: 26-35, 36-45 and 46-55. β is the coefficient of each age group. Equation (1) can be explained as

$$Y_i = \begin{bmatrix} y_{i1} \\ y_{i2} \\ . \\ . \\ . \\ y_{it} \end{bmatrix}_{t \times 1}, \quad X_{it} = \begin{bmatrix} x_{i1} \\ x_{i2} \\ . \\ . \\ . \\ x_{it} \end{bmatrix}_{t \times k}, \quad \varepsilon_{it} = \begin{bmatrix} \varepsilon_{i1} \\ \varepsilon_{i2} \\ . \\ . \\ . \\ \varepsilon_{it} \end{bmatrix}_{t \times 1} \quad \text{and where } X_{it} = \begin{bmatrix} X_{it}^1 & X_{it}^2 & .... & X_{it}^k \end{bmatrix}_{k-Regressors}$$

$\varepsilon_{it} \sim N(0, \delta_i^2)$

δ_i^2 is the variance of error term of each age group.

The data density is $\beta^\wedge / \beta \sim N(\beta, \Omega_i)$

(2)

and the prior density is $\beta \sim N(\mu, \Lambda)$

(3)

so, then posterior density will become as $\beta / \beta^\wedge_i \sim N(m_i, V_i)$

(4)

Where the values of Equation (4) are as

$$m_i = V_i\left(\Omega_i^{-1}\hat{\beta}_i + \Lambda^{-1}\mu\right) \quad and \quad V_i = \left(\Omega_i^{-1} + \Lambda^{-1}\right)^{-1}$$

(5)

{The details of the Analytical solutions of posterior density can be found in (Zaman, 1996)}. As the Classical Bayes estimator is the mean of posterior. So

$$\hat{\beta}_{i(CB)} = V_i\left(\Omega_i^{-1}\hat{\beta}_i + \Lambda^{-1}\mu\right) \quad \text{and its variance-covariance matrix is} \quad V_i = \left(\Omega_i^{-1} + \Lambda^{-1}\right)^{-1}$$

(6)

The two hyper parameters, μ and Λ are unknown. If these two are estimated from the data, then $\hat{\beta}_{i(CB)}$ will be termed as Empirical Bayes estimator and equation (6) becomes as

$$\hat{\beta}_{i(EB)} = \hat{V}_i\left(\hat{\Omega}_i^{-1}\hat{\beta}_i + \hat{\Lambda}^{-1}\hat{\mu}\right)$$

(7)

Where the values of equation (7) are as

$$\hat{\Lambda} = \left(\sum_{i=1}^n \Omega_i^{-1}\right)^{-1} \quad \text{and} \quad \hat{\mu} = \hat{\Lambda}\left(\sum_{i=1}^n \hat{\Omega}_i^{-1}\hat{\beta}_i\right)$$

The advantage of Empirical Bayes technique is that it considers heterogeneity with great care and Empirical Bayes has much lesser standard errors as compared to other techniques in the literature (Zaman, 1996). Moreover, in our case as it is pooled panel, therefore the heterogeneity matters a lot and the simple estimators like OLS with robust standard errors or GLS do not perform well {(Zaman, 1996) and Carrington and Zaman (1994)}.

The Empirical Bayes Estimator is the precision weighted average of the first level estimates of each cohort. Intuitively, it makes sense as it takes the first regressions from each cohort and all the issues relating to

regression models (heteroskedasticity, autocorrelation and endogeneity) are addresses at first level regressions. The other advantage is that it takes the variation of each cohort into account at the second level of estimation (prior estimation). After that when it goes back to each cohort estimation, it considers two types of variation (first level and second level(prior)). The empirical Bayes Estimator is more efficient than GMM and traditional estimators (OLS, 2SLS, GLS etc.), therefore it may be preferred. On the intuitive side, Empirical Bayes is better than rest of all above as it takes into account two types of variations {(Zaman, 1996) and Carrington and Zaman (1994)}. For detailed discussion on Empirical Bayes and other estimators, see (Zaman, 1996).

This paper applies two methodologies namely fixed effect on pseudo panel data and Empirical Bayesian modelling in pseudo panel data setting.

The Measurement of Intergenerational Earning Mobility
We are starting this section by estimating intergenerational elasticity using individuals' earning data taken from SILC surveys from 2006-2021. We have converted nominal earnings into real earnings using the consumer price index. Following Becker & Tomes (1986), we will estimate IGE to estimate the relationship between children's and fathers' income using the following equation:

$$y_i^c = \alpha + \beta y_i^f + \varepsilon_i^c \tag{8}$$

Where y_i^c is children income, β is the slope coefficient which measures the impact of the family's income status on the children income, ε_i^c is a white noise error term. The value of β *closer* to 1 shows immobility, while estimates of β closer to zero show rapid regression to the mean, indicating higher mobility. The coefficient of β would further be decomposed into its causal components to take into account the other factors such as genetic and cultural endowments that transmit from parents to children: education of children, gender of children, and marital status of children.

$$y_i^c = \alpha + \beta_1 \text{Income}^f + \beta_2 \text{Education}^c + \beta_3 \text{Gender}^c + \beta_4 \text{marital status}^c + \varepsilon_i^c \tag{9}$$

The second goal of the paper is to estimate the occupational mobility dynamics in Turkey. As the dependent variable is a dichotomous variable, where 1 is assigned when parents & children are in the same occupation and the value of 0 is assigned otherwise. The logit model has been regressed to estimate the trend of Occupational Persistence in Turkey among different economic groups; we will estimate the following model:

$$\text{Occupation}^c = \alpha + \beta_1 \text{Income}^c + \beta_2 \text{Education}^c + \beta_3 \text{Gender}^c + \beta_4 \text{marital status}^c + \varepsilon_i^c \tag{10}$$

Where β_1 accounts for the impact of children income on the decision of whether to follow the father's occupation or not, β_2 is the coefficient on the impact of children education which has on the income, the slope coefficient β_3 estimates the role of gender on children's earnings and the coefficient β_4 measures the impact of marital status on the dynamics of children following their fathers' occupation.

Results

Table *2* presents estimates of intergenerational elasticity between children and fathers, first row results have been estimated using Bayesian methodology while second-row results have been calculated using the pseudo panel fixed effect model.

Table 2
Intergenerational Earning Elasticity (IGE)

	IGE-Male	IGE-Female	IGE-Full Sample
Bayesian	0.523	0.528	0.526
	(0.008)	(0.007)	(0.010)
Pseudo Panel	-	-	0.948
			(0.085)
No. of obs	7916	3735	11651

Author's own calculation. The data has been taken from SILC.

The first and second column report results of male and female separately to see how the elasticity differs for both genders, and the last column report results for the whole sample. The association between fathers' and daughters' earnings is slightly higher than the association between sons' and fathers' income. This shows that mobility is lower for daughters in Turkey, and this could be due to cultural and institutional factors such as sons can find a job more easily and daughters' education and economic outcomes are more dependent on their family income The IGE coefficient is 0.526 for the overall sample which is close to the recent study done by Demirtaş & Torul (2023) for Turkey.

Table 3
IGE at Different Career-Level

	Child Income	Child Income	Child Income
VARIABLES	**26-35**	**36-45**	**46-55**
Father Income	0.505*	0.543*	0.480*
	(0.011)	(0.015)	(0.035)
Constant	4.370*	3.981*	4.519*
	(0.112)	(0.147)	(0.342)
Observations	6709	3993	949
R-squared	0.188	0.210	0.137

Notes: Standard errors in parentheses: *** $p<0.1$, ** $p<0.05$, * $p<0.01$. The data has been taken from SILC.

Table *3* shows the result of the IGE coefficient for the three cohorts which have been made based on individuals age. The first columns report the result of IGE between fathers' income and children' income when children are between the ages of 26 and 35, the second columns report the IGE between fathers and children' income when children are between the age of 36 and 45, and the last columns represents the association between fathers' income and children' income when children are between the age of 46-55. These three age groups have been formed to represent the different career levels of children: 26-35 age shows when children are at the beginning of their career level, 36-45 when they are in the middle of their career journey, and 46-55 age groups represents children being at the peak-age of their career. All the coefficients are positive and highly significant; however, the IGE coefficient is highest when children are between the age of 36-45, representing children' income is highly explained by their father's income when they are at the mid of their career level.

Table 4
IGE for Different Quantiles

	1st quantile	2nd quantile	3rd quantile	4th quantile
VARIABLES				
Father Income	0.483*	0.525*	0.516*	0.521*
	(0.008)	(0.008)	(0.009)	(0.008)
Constant	4.474*	4.041*	4.127*	4.111*
	(0.081)	(0.088)	(0.094)	(0.083)
No. of obs	1150	2486	3040	4975

The table presents results of IGE estimates for children whose fathers belong to different economic backgrounds. 25% (1st quantile) represents the IGE estimate when children come from the lowest-income family background and 100% (4th quantile) represents the richest economic family status.

Table 4 shows the result of the association between fathers' and children' income when fathers are divided into different income quantiles. The first column shows the result of the IGE coefficient for children when their fathers are in the first quantile, which shows the poor class of the sample, similarly 2nd, 3rd and 4th quantiles are representing middle, upper middle class and rich fathers in the sample- all the IGE coefficients are significant at 1% level, the coefficient of association among fathers' income and children' income is the highest when fathers are in 2nd quantile and 4th quantile. The results from the table 4 shows that the association between fathers' income and sons' income in the low-income families. On the other hand, sons' income dependence on fathers' income gets stronger for high-income families, the association is strongest for the middle income followed by families on the fourth quantile (richest income group).

Table 5
Determinants of Sons' Income

	Child Income	Child Income	Child Income
VARIABLES	Beginning of Career	Mid-Career	At Peak of Career
Father Income	0.513*	0.512*	0.510*
	(0.007)	(0.008)	(0.009)
Education	0.020*	0.019*	0.020*
	(0.004)	(0.004)	(0.005)

Gender	0.068*	0.077*	0.075*
	(0.014)	(0.016)	(0.018)
Marital Status	0.154*	0.171*	0.161*
	(0.014)	(0.015)	(0.017)
Constant	3.987*	3.987*	4.001*
	(0.078)	(0.084)	(0.084)
No of obs	6709	3993	949

Notes: Standard errors in parentheses: *** p<0.1, ** p<0.05, * p<0.01. The data has been taken from SILC.

Table *5* has results from Bayesian regression when fathers' income, education, marital status, and gender of children on different career levels are regressed on children's income. The first column entails results of the initial career stage regression, the second column is for when children are at mid-career level and the third column is for when children are at the peak of their career level: children income is explained 51.3% by the father income when he is at the initial and 51.2% when he is at the mid-stage of his career and 51% when he is at the peak of his career level representing children' income is less affected by the fathers' income when children are at the peak of their career level as compared to when they are at the beginning or mid-career level. Income is affected by the education level at all career levels, it's the highest for children at their peak career level, which is 2.09% followed by the children at their initial career level, 2.04%. Gender is a dummy variable, 1 for male and 0 for female; all the coefficients for gender are significant and positive, showing being male has a positive effect on personal income- the highest coefficient is for sons at the of their career level, followed by sons at the peak of their career level. Marital status is also a dichotomous variable, 1 show being single and 0 is otherwise. Being single has the highest positive impact when you are at the middle of your career level, followed by when you are at the peak of your career level.

Table 6
Occupational Mobility

VARIABLES	1st and 2nd quantile Poor-Lower Middle	3rd and 4th quantile Upper Middle-Rich
Income	-.221*	-.052*
	(.033)	(.064)
Education	-.064*	-.035*
	(.016)	(.020)
Gender	.039*	.207*
	(.054)	(.068)
Marriage	-.015*	.002*
	(.039)	(.044)
Constant	1.131*	.676*
	(.3105)	(.65554)
No. of obs	3636	8016

Notes: Standard errors in parentheses: *** p<0.1, ** p<0.05, * p<0.01. The data has been taken from SILC.

Table *6* shows the results for occupational mobility trends in Turkey. The dependent variable, occupational persistence, which is a binary variable, 1 when sons are in same occupation as of their fathers and 0 when otherwise. Income is the most crucial factor affecting the occupational mobility of the children: higher income is negatively related to occupational persistence- meaning that with increase in income, the probability of occupational persistence decreases which leads to an increase in probability of occupational mobility. This relationship is higher for children whose fathers have low-income, showing given the higher income, the tendency to follow a different occupation than of their father is more elevated in low-income families as compared to wealthy families- which confirms our hypothesis that occupational mobility is lower in rich families. Being highly educated is negatively related to occupational persistence as well, however, this relationship just like income, is stronger for children belonging to low-income families: being highly educated would reduce the likelihood of sons following their fathers' occupation. This suggest that educational institution play a significant role in individuals career's trajectories (Khan et al.,2020). The gender coefficient shows the impact of being male on occupational mobility: being male in rich families has a higher probability of following the father's occupation than being female, and the relationship is more robust in rich families. The coefficient of marriage shows the impact of being single on the probability of child following their father's occupation- being single reduces the likelihood of

children following their father's occupation in low-income families, at the same time this relationship is positive for rich families. Being single in rich families would have a chance of children following their father's occupation.

Cohort Analysis for Robustness Check:

To test the robustness of our model, by utilizing one wave of our rotational panel data of survey income of living condition from 2014-2017 we have used empirical Bayesian methodology along with the methodology which is usually used in intergenerational mobility studies when panel data is available, OLS. The analysis has only been done on the 1,251 individuals whose data was available for at least consecutive 3 years-for SILC data, the maximum data available for an individual is 4 years. The results from Bayesian methodology and OLS both have the same signs on the coefficients, and most of the coefficients are very close to each other. For instance, the coefficients for father's income are closely aligned in both methodologies, indicating that the relationship between father and son incomes remains consistent regardless of the estimation method used. Bayesian and OLS coefficients are of almost similar magnitude across different age groups, quantiles, and career stages confirming the effectiveness of methodology used to capture the core dynamics of IGM.

Table 7
IGE at Different Career-Level

	26-35		36-45		46-55	
	OLS	**Bayesian**	**OLS**	**Bayesian**	**OLS**	**Bayesian**
Father Income	0.331***	0.345***	0.321***	0.347***	0.557***	0.363***
Constant	6.20***	6.094***	6.496***	6.125***	4.032**	5.934***
N	710		389		89	

Note: *** $p<0.1$, ** $p<0.05$, * $p<0.01$. The data has been taken from SILC.

Table 7 provides result of intergenerational mobility of sons divided in 3 age groups, from OLS estimation and Bayesian methodology. The direction of the association between sons' income and fathers income from both methodologies is same. The estimates shows that fathers' income have significant and positive impact on sons' income. If the coefficient is close to 1, it shows immobility, coefficients closer to 0 represent mobility.

Table 8
IGE for Different Quantiles

	1st quantile		2nd quantile		3rd quantile		4th quantile	
	OLS	**Bayesian**	**OLS**	**Bayesian**	**OLS**	**Bayesian**	**OLS**	**Bayesian**
Father Income	0.0369***	0.235***	0.940***	0.284***	0.370	0.283***	0.485***	0.336***
Constant	8.918***	7.152***	0.194***	6.665***	5.834	6.693***	4.644**	6.183***
N	273		402		337		238	

Note: *** $p<0.1$, ** $p<0.05$, * $p<0.01$. The data has been taken from SILC.

Table 8 reports the result of OLS and Bayesian regression estimates of IGM based on fathers' income, e.g., fathers are being divided based on their income. So, 1st quantile father's income group refers to children belong to low-income group and 4th quantile is the richest-income group. Fathers' income has positive impact on sons' income irrespective of the family status.

Table 9
Determinants of Sons' Income

Variables	Child Income		Child Income		Child Income	
	Beginning of Career		**Mid-Career**		**At Peak of Career**	
	OLS	Bayesian	OLS	Bayesian	OLS	Bayesian
Father Income	0.254***	0.230***	0.125*	0.194***	0.182	0.211***
Education	0.160***	0.175***	0.191***	0.187***	0.248***	0.190***
Gender	-0.181**	-0.182***	-0.0805	-0.167***	-0.372	-0.195***
Marital Status	0.118*	0.118***	-0.0253	0.080***	0.211	0.136***
Constant	6.408***	6.617***	7.832***	7.010***	7.135***	6.766***

N	710	389	89

Note: *** p<0.1, ** p<0.05, * p<0.01. The data has been taken from SILC.

Table *9* reports results of OLS regression and Bayesian on the impact of various variables on sons' income at different career level. Fathers' income has significant positive impact on sons' income at all career stages. Besides fathers' income, education and being single has positive impact on sons at all career stages. The gender (1=male) coefficient is negative representing being male is negatively related to income, the sign of the gender coefficient is same for both methodologies for all career level.

Table 10
Occupational Mobility

Variables	1st and 2nd Quantile		3rd and 4th Quantile	
	OLS	**Bayesian**	**OLS**	**Bayesian**
Income	0.0878	0.178***	0.397**	0.006***
Education	-0.0282	-0.044***	-0.137	0.001***
Gender	-0.0492	-0.095***	-0.127	0.015***
Marriage	0.292*	0.142***	-0.157	0.007
Constant	-2.369	-2.806***	-3.900**	0.557***
N	675		575	

Note: *** p<0.1, ** p<0.05, * p<0.01. The data has been taken from SILC.

Table *10* shows the result of occupational mobility regression using OLS and Bayesian, both yielding coefficients with same sign for 1st and 2nd quantile income-group.

Conclusion

Intergenerational mobility leads to a rise in individuals' well-being and higher economic equality. This paper sheds light on intergenerational income and occupational mobility in Turkey using microdata from Turkstat on the Survey of Income and Living Conditions (SILC) from 2006-2021, using pseudo-panel (fixed effect) and Bayesian methodology.

We estimate intergenerational earning elasticities using individuals' earnings for parents-son and parents-daughter pair. Our paper also contributes to the literature by estimating the intergenerational earning elasticity and occupational mobility for children at different career levels, using their age as a proxy variable: 26-35 (beginning career level), 26-45 (mid-career level), and 46-55 (peak of the career level). We have considered the association among education, gender, marital status, and intergenerational mobility throughout our analysis. Our results offer detailed insights that are significant and robust.

The intergeneration earning elasticity for males in Turkey is slightly higher for the parents-son pair than for the parents-daughter pair. The intergenerational elasticity for the whole sample is 0.52, which is very close to the IGE found by Demirtaş and Torul (2023). Our results show intergenerational mobility is lower when parents are in the 2nd and 4th quantile of the income distribution. On estimating the impact of family income on children income at different stages of career levels, we found a higher association of parents' income when children are at the middle of their career level.

Our paper also analyses how the different variables affect the intergenerational occupational mobility dynamics from different socio-economic backgrounds in Turkey. Our findings show that income is the strong incentive for children to break the cycle of intergenerational occupational persistence. This relationship is strong when children are in poor families- the coefficient for children coming from richer families is much smaller, which shows that given the higher income incentive, intergenerational occupational mobility is higher in poor families as compared to the children coming from rich families: intergenerational occupational persistence is higher in wealthier families.

Overall, the finding of our study suggests that high persistence in rich families indicate a barrier to children coming from low-income family background in breaking the cycle of generational poverty. Education is a key factor in breaking this cycle, and policies amid at providing quality education to all children, regardless the social class they belong to, is essential to increase mobility in the country.

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Ethical Dilemmas: A Perspective from Pakistani Higher Education Institutions

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Employees' deviant behavior has become a serious concern for employers as it puts organizational productivity at stake. The current study examined the existing unethical and immoral practices in the higher education faculty from the perspective of management. In order to achieve this goal, the study determined how faculty members' attitudes and perceptions towards moral standards and codes of conduct in Pakistan's higher education institutions manifest themselves in their actions while at work. Purposive sampling was used in combination with participant observation to conduct 19 interviews with the management of Pakistan's top universities, adhering to the qualitative tradition. As analytical techniques, pattern matching and cross-case analysis were applied. The findings revealed several intentional deviant behaviors that harm the work quality of academics. It is therefore important to address all such issues to preserve the quality of higher education.

Keywords: ethical, deviant behavior, higher education, faculty, professional employees, Pakistan

Organizational success depends upon the righteous conduct of its employees; however, not all employees embrace good behavior, either intentionally or inadvertently. As a result, some engage in deviant behavior—another word for unethical behavior—at work (Black et al., 2022). Workplace deviant behavior is gaining increased attention among scholars and practitioners (Shoaib & Baruch, 2019). Several organizations are faced with the problem of a steady increase in deviant behaviors among employees, thus posing a challenge for management. Therefore, scholars are busy trying to identify the causes of deviant behaviors in different work settings (Shoaib & Baruch, 2019). Behavioral issues arise due to employees' non-compliance with the organizational code of ethics, core values, culture, etc., hence affecting the achievement of the ultimate purpose of the organization, its goals, objectives, and organizational standards (Hussein et al., 2023). Counterproductive behavior, whether observable or not, is detrimental to organizational productivity (Black et al., 2022). A range of unethical or deviant behaviors have been identified, which include, but cannot be limited to, habitual absenteeism, unpunctual damage to organizational property, stealing and misuse of resources, malingering, sabotage, intentionally slowing down the work pace, taking unauthorized or prolonged breaks, nepotism, favoritism, etc. (Jawad et al., 2013).

Although people strive to do the right things, they at times cannot control their desires to steal, lie, cheat, and steal for personal gain (Shoaib et al., 2022; Jancsics et al., 2023). People's engagement in unethical behavior is influenced by their tendency for moral disengagement (Yunis et al., 2018). Particularly for activities that call for the use of self-control abilities (Gino et al., 2011), which could weaken their capacity for self-control and lead to unethical behaviors (Shoaib & Baruch, 2019; Jancsics et al., 2023). According to the authors, employees who have a higher propensity to morally disengage from their work are more likely to act unethically there. Various authors

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have referred to moral issues as unethical behaviors (e.g., Bandura, 2002; Jancsics et al., 2023). In other words, employees view unethical or counter-workplace behavior as immoral (Tariq et al., 2022).

Deviant behavior is a key problem in higher education faculty (Moriña et al., 2020), mostly attributed to information asymmetry (Dalton et al., 2007) that is by default present in the job of these professionals. Information asymmetry makes it difficult for the principal to monitor (Muslim & Setiawan, 2021), which are prone to exploitation (Shoaib & Baruch, 2019). The literature has suggested two ways to curb this problem: direct monitoring and the provision of incentives. However, both have their limitations, i.e., direct monitoring may not always be the preferable mode of surveillance, and incentive provision has resulted in an inflated publication count that has taken a toll on quality. According to Shoaib and Mujtaba (2018), employees may neglect their duties or act selfishly in order to benefit themselves. In light of the given situation, this study examines behavioral problems in the higher education faculty in public sector universities in Pakistan to seek answers to research questions about what ethical and moral issues are present in the faculty and how these are manifested. This investigation covers a substantial gap in the literature by highlighting specific ethical and behavioral difficulties that are prevalent among academics in Pakistan's higher education institutions that are adversely affecting the quality of education.

Literature Review
Behavioral issues
Employees must accept the culture and values of their workplace (Dyer, 2023). However, not all employees strictly adhere to workplace ethics and instead disregard the organizational culture and its practices, creating a challenge for the management (Jha & Singh, 2023). Unethical behavior and deviant behavior have been used interchangeably, and this includes a variety of actions, including stealing and dishonesty (Chen et al., 2014), detrimental behavior (Cohen-Charash & Spector, 2001), employees' misbehavior (Jha & Singh, 2023), and dysfunctional behavior in the workplace, which has the potential to harm organizational productivity, well-being, and organizational interests (Jancsics et al., 2023). Workplace deviant behavior is understood as any deliberate or controlled behavior exhibited by individuals in an organization contrary to organizational policies and codes of ethics (Othman et al., 2022). The author claims that these counterproductive work practices or employee actions go against the organization's true interests. The concept has been defined by Kotowitz (1987) as "actions of economic agents in maximizing their utility to the detriment of others, in situations where they do not bear the full consequences (p. 549)". Workplace deviant behavior is a form of negative reciprocity by the employees for any ill-treatment that they may have received from their organization (Khattak & Abukhait, 2024).

Contemporary research has focused on the positive outcomes of employees' behavior rather than looking at the other aspect, which is a deviation in behavior (Khattak & Abukhait, 2024). Higher education faculty members are usually provided incentives for increasing their output in the areas of research and teaching because the literature suggests that individuals can be motivated to raise their level of effort and, consequently, output, using some sort of payment that is linked to the work output (Olaskoaga-Larrauri et al., 2023). However, there is no guarantee that increased performance will be the expected performance on the appropriate work, and in the appropriate way, it needs to be looked into. According to Kayyali (2023), higher education quality has historically been limited to measurable factors, occasionally neglecting more significant but less easily quantifiable elements of the curriculum.

It is a well-known fact that academics oversee and participate in their institution's management, research, and teaching activities. However, according to Kayyali (2023), in higher education, excellent research and teaching can occasionally be seen as sources of paradoxes. Therefore, these two areas are the primary sources of academic behavioral issues. Because it significantly affects the quality of education and, by extension, the larger society, deviant behavior in the field of education has been of great concern to scholars. For instance, massive losses result from pervasive dishonesty and unethical behavior in both the public and private sectors (Nakitende et al., 2024). Some common deviant behaviors in the faculty have been pointed out by Ryan and Weinstein (2009), which include cutting down the course contents and teaching to the test to gain students' favorable evaluations. Furthermore, Shoaib and Baruch (2019) state that misconduct-related research seems to be substantial in scope and growing quickly, particularly the issues of plagiarism and freeriding, which lends support to the slogan "publish or perish" (Elbanna & Child, 2023).

Increased performance on tasks that will yield immediate financial gains (such as fabricating publications or adding more credit hours at the expense of quality) will entice faculty members and divert their focus from all other projects that have no financial rewards associated with them (Shoaib & Baruch, 2019).

Employees will thus shirk a task unless it has some contribution to their economic well-being (Spencer, 2023). Practices of this sort will have the opposite impact on higher education's quality (Elbanna & Child, 2023).

Pakistani higher education context

Since the inception of Pakistan in 1947, higher education in Pakistan has gone through various developmental phases. The University Grants Commission (UGC) was established by Quaid-e-Azam Muhammad Ali Jinnah upon the recommendations of different stakeholders. UGC was then the federal regulatory institution for universities. Later in the 1960s, the UGC wanted to strengthen higher education in the country and therefore granted the existing colleges a degree-awarding status and introduced the culture of research in universities. Furthermore, in 1971, a new education policy was introduced according to which, within two years, colleges were upgraded to universities under state-owned regulations, whereas all private universities were nationalized. This was a time when exponential growth was witnessed in the higher education sector of the country. As a result, the groundwork was done for two internationally recognized private universities, namely Aga Khan University (1983) and Lahore University of Management Sciences (1985). However, due to a lack of sustainable policy infrastructure, inadequate funding, and flaws in the National Education Policy and its implementation, ultimately resulted in the Higher Education Commission (HEC) being founded in 2002. by General Pervaiz Musharaf, the reigning President at the time, thus replacing the UGC by this new regulatory body. Since then, the HEC has been taking care of the higher education requirements of the country by diligently regulating and monitoring all facets of the quality and promotion of higher education. Currently, the HEC recognizes around 132 universities and higher educational institutions, of which 73 are in the public sector and 59 are in the private sector.

According to the current rankings of the Times Higher Education World University, only four Pakistani universities could make it to the top 1,000 (Baty, 2013). Despite an array of reforms introduced in the higher education sector, the country is still struggling to keep pace with international standards. This fact is evident in the United Nations Global Education Monitoring Report (2016). The report has pointed out that the education system in Pakistan is 50 years behind global standards, which is why only four universities have just made it to the top 1,000 in the global university ranking. In addition to social class disparity, gender disparity is also prevalent in this region. More than 50 percent of the population comprises females, yet as little as 30 percent of this population is educated. Higher education was already out of the reach of lower-class people and is now even slipping out of the hands of the middle class. Even those enrolled in higher education are facing serious issues, such as outdated pedagogy and curricula, non-participation of students in classroom activities, and a shortage of eminent academicians, which has led the country to lag in basic and practical research in Pakistani universities, thus slowing down the process of innovation in almost every field (Murtaza, 2021; Aslam et al., 2023).

The study on ethical problems in Pakistan's higher education institutions seeks to fill a sizable vacuum in the body of knowledge. There is a paucity of thorough knowledge regarding the unique behavioral issues that exist in the faculty in the Pakistani higher education context, despite the fact that ethical issues are known to occur in educational settings. By exploring the distinctive ethical and moral issues present in academics and students, as well as the contextual elements that led to the creation of these issues, this study aims to close this gap. The study seeks to shed light on these issues in order to give policymakers, educators, and researchers useful information for creating strategies and interventions that will encourage ethical decision-making and improve the ethical climate in Pakistan's higher education institutions.

Theoretical perspective

Higher education institutions (HEIs) have distinct features that may impact how workplace deviance presents itself. A unique work environment is produced by the tenure system, the academic freedom provided to faculty members, and the emphasis on both teaching and research. It is possible to better understand how and why faculty members might participate in unethical and immoral practices by applying some classical workplace deviance theories to this situation. A range of theories have been put forward to understand the dynamics of deviant (unethical and immoral) behaviors in organizations. Applying these theories to the HEIs, we can understand the phenomenon in detail. For instance, the Social Exchange Theory (Blau, 1964) could shed light on how perceptions of unfair treatment by university administration lead to deviant behaviors such as absenteeism or reduced effort. The relationship between owners and managers, or principals and agents, is the subject of agency theory (Jensen & Meckling, 1976). The theory addresses conflicts of interest that arise when agents, entrusted to make choices for the principals., have incentives that may not align with the principals' best interests. Social Learning Theory (Bandura, 1977) can explain how new faculty members might adopt deviant behaviors by observing their tenured colleagues. General Strain Theory (Agnew, 1992) can highlight how the pressures of publishing and securing funding contribute to unethical research practices. The Corporate Ethical Virtues Model

(Solomon, 1992) can be helpful in understanding how organizational virtues such as clarity, congruency, and supportiveness influence ethical behavior. Promoting virtues like clarity in ethical guidelines, congruency between stated values and actions, and support for ethical behavior can reduce deviant actions among faculty. Ethical Climate Theory (Victor & Cullen, 1987) and Behavioral Ethics Theory (Messick & Tenbrunsel, 1996) examine why individuals engage in unethical behavior despite knowing it is wrong, focusing on the psychological and situational factors that lead to such actions. Psychological Contract Theory (Rousseau, 1998) emphasizes the role of unspoken, informal agreements between employees and employers that can identify issues in the informal agreements between the faculty members and the management. Moral Disengagement Theory (Bandura, 1999) posits that individuals rationalize unethical behavior by disconnecting from their moral standards, allowing faculty to justify actions such as manipulating research data or exploiting student labor as necessary for career advancement. Faculty expectations regarding fair treatment, career development opportunities, and institutional support influence their engagement and adherence to ethical standards, with violations of these psychological contracts potentially leading to retaliatory deviant behaviors. Moreover, social cognitive theory (Bandura, 2003) asserts that behavior is learned through observing others and cognitive processes. Faculty may adopt deviant behaviors observed in their colleagues, particularly if those behaviors appear to be rewarded. Conversely, witnessing the negative consequences of deviance can act as a deterrent. Finally, organizational culture theory (Edgar, 2004) highlights the impact of an institution's prevailing values, beliefs, and norms on member behavior. A culture emphasizing transparency, accountability, and ethical conduct can mitigate deviant behaviors among faculty. Understanding these factors can help institutions develop better policies and training programs to prevent unethical practices. By applying these theories, institutions of higher education and learning can develop more effective strategies to promote ethical behavior and mitigate misconduct.

Method

Design of the study and data collection

Purposive sampling was used to carry out semi-structured interviews with the management and a few knowledgeable people in order to better align with the study's objectives and explore emerging themes and topics (Franke & Arvidsson, 2011). The process of choosing participants was based on their roles and areas of expertise within higher education institutions. The participants included senior faculty members, department heads, and deans who oversee academic conduct and enforce ethical standards. Their observations are essential to comprehending how faculty behave and how well-functioning the moral frameworks are that are currently in place.

Based on the demographics of the target population in Pakistani higher education institutions, where male faculty members and administrators predominately hold positions of authority and oversight, the decision was made to only include male participants. The gender makeup of the leadership in these organizations is reflected in this demographic reality. We made sure that participants were well-represented in terms of age, academic standing, and institutional affiliation in an effort to lessen the likelihood of bias.

The reason for collecting data from these participants is because the scope of this study has been confined to the management view of how the faculty engages in deviant behaviors. Moreover, due to the sensitivity of the topic, it was not sensible to ask the faculty about their behavioral issues because that might amount to immoral or unethical acts. Eisenhardt and Graebner (2007) state that gathering data from informed informants with a comprehensive understanding of the focal phenomenon is a crucial component of employing interviews. Purposive sampling was used in an iterative manner to select interview subjects with in-depth knowledge in order to maximize the amount of rich and deep data that could be used to address the research question (Kuzel, 1999). 19 interviews with top managers of higher education institutions (HEIs) and the Higher Education Commission (HEC) were conducted over a period of four months from April to July in the year 2019.

Prior appointments were made with all the interviewees. The interviewee chose the time and date that worked best for them because these were mostly individuals holding top-level management and supervisory positions in academic institutions and usually have tight work schedules. Almost all of the interviews took place in the respondents' offices. Prior to embarking on the interviews, the interviewees permission was obtained for tape recording the interviews. The respondents were further informed that at any time, if they do not feel comfortable with the recording, it could be stopped. The interviewees were asked to answer questions at their own discretion, since the goal was to gather information in a friendly manner rather than to offend anyone. The interviewer also presented a consent form to the interviewee at the start of the interview, which was duly signed by them.

The interviewer diverted from the questions outlined in the interview protocol multiple times if something interesting and informative was sensed that the interviewee was ready to share. This required developing a rapport

with the interviewee and making him feel that he had not been dragged into some boring activity. The average duration of the interviews lasted for 50 minutes, which was sufficient time to gather important data. In addition to conducting position-based interviews, the researcher made an effort to get the insights of experts who might be a useful resource for the study.

Four of the study's interviewees were vice chancellors, three were deans, and six were directors of large disciplines. Six more interviews were conducted with chairmen of different departments and directors of the Quality Enhancement Cell (QEC) of the chosen universities and HEIs. The coding scheme of the interviewees has been provided in Table 1 in the appendix. In the given alpha numeric codes, A, B, C, D, E, F, and G represent the six different universities and HEIs that include the University of Peshawar, Agriculture University, Peshawar, University of Engineering and Technology, Peshawar, Islamia College University Peshawar, Khyber Medical University, Institute of Management Sciences, Peshawar, and the Higher Education Commission. The numeric codes represent the interviewees or respondents. However, due to the sensitivity of the phenomenon under investigation, it was not appropriate to disclose the labels assigned to different universities and educational institutions. The age range of the participants is 46–64, with a mean age of 55.7. Sixty-eight percent held a doctorate, while the remaining individuals held master's degrees. Since they were all men, they represented gender inequality in Pakistan.

To cover all facets of the phenomenon, a thoughtful and comprehensive list of guiding questions, interview guides, or protocols was created. The protocol or interview guide was made up of open-ended questions and was divided into three parts that included the introduction, background information, and behavioral problems. In the introduction part, the interviewee introduced themselves, explained the purpose of the interview, sought consent for recording the interview, and ensured confidentiality for the participant. In the second section, which focused on background data, participants were asked about their position, role, experience on the job, and time spent in the higher education sector. This was followed by the last part of the questions related to behavioral problems in the faculty. Before asking questions about the existence of ethical and moral problems in the faculty, the participants were briefed on the operational definition of "ethical dilemma" used in this study. The participants were then asked in detail about ethical and behavioral problems that are present in the faculty. Some sample questions include: "What ethical issues and dilemmas you are aware of in the higher education institutions?", " What are some common ethical/behavioral issues you have experienced or observed in the faculty working within the higher education institutions?", "Can you provide any examples of such ethical issues or behavioral problems in the faculty?", "Can you provide some examples of ethical issues that can be specifically related to the teaching component of the faculty?", 'Can you provide some examples of ethical issues that can be specifically related to the research component of the faculty?", "Can you provide some examples of ethical issues that can be related other areas/aspects of the faculty's job besides teaching and research?" "Are there any cultural or contextual factors specific to Pakistan that influence the ethical landscape in higher education?" "How do these factors shape the ethical decision-making of the faculty?".

Table 1

List of Interviews

No.	Case	Position	Interviewee Code	Interviewee Duration
1	A	Vice Chancellor	A1	50 min.
2	A	Chairman, Chemistry Department & Director, QEC	A2	1 hour & 10 min.
3	A	Dean, Faculty of Social Sciences	A3	57 min.
4	B	Vice Chancellor	B1	1 hour
5	B	Director, Advanced Studies and Research, Director ORIC	B2	47 min.
6	B	Director, Advanced Studies, and Director, QEC	B3	1 hour & 5 min.
7	C	Dean, Faculty of Crop Production Sciences & Genetics	B4	1 hour & 20 min.
8	C	Vice Chancellor	C1	1 hour
9	C	Dean, Faculty of Electrical Engineering	C2	1 hour & 15 min.
10	D	Vice Chancellor	D1	48 min.
11	D	Dean, Faculty of Physics & Numerical Sciences	D2	57 min.
12	D	Chairman, Statistics Department	D3	55 min

13	E	Vice Chancellor	E1	40 min.
14	E	Director, QEC	E2	30 min.
15	F	Director	F1	55 min.
16	F	Deputy Director	F2	40 min.
17	F	Coordinator, MSc Applied Sciences	F3	1 hour & 44 min.
18	F	Coordinator, BBA	F4	40 min.
19	G	Chairperson, Committee for Development of Social Sciences	G1	40 min.

Multiple measures were taken to comply with research ethical standards to ensure that the research is conducted with integrity to safeguard the participants' rights throughout the research process. Some of these actions include approval from the Internal Research Committee, informed consent of the participants, concealing their identities, safe storage of the data, honest reporting of the findings, etc. First, approval was sought from the Internal Review Committee (IRC) before starting the study. This committee comprises the most senior people in the organization. An affidavit was also signed by the principal researcher, which stated that the researchers would maintain the highest ethical standards and make sure that nobody was harmed in any way as a result of this study. Second, the study complied with research ethics by obtaining informed consent from the interviewees to share their views about the presence of ethical and moral issues in the faculty. The participants had complete discretion to skip any question that they didn't feel comfortable answering. Also, the audio or video recording was done after seeking their permission. The participants were further informed that they could withdraw at any time or ask to stop the recording due to the sensitivity of the topic. Prior to the commencement of the interview, the goal of the study, its advantages, and any potential risks were explained to the participants. Third, to minimize the risk for the participants, their privacy was safeguarded by assigning codes or pseudonyms instead of using their personal identity. Moreover, all the interview transcripts or any other data were stored securely, and only authorized researchers had access to the data to avoid any misuse of the information. Fourth, every effort was made by the researchers during the transcription and interpretation processes to report the findings as per the true intent of the interviewees and to refrain from data fabrication.

Methods of Analysis
Using NVivo 9, a thematic analysis of the word transcripts was completed, which is a computer program for qualitative data analysis (QDA). This software allows the researchers to easily manage, analyze, and visualize large sets of qualitative data. New themes stopped emerging after about 13 interviews, a phenomenon known as "data saturation". When new participants are added to a study until all the data have been collected, this is referred to as data saturation. "Saturation is reached when the researcher gathers data to the point of diminishing returns when nothing new is being added" (Bowen, 2008, p. 22). Therefore, data saturation and sample size adequacy are directly related (Marshall et al., 2013). Nonetheless, the term "data saturation" is relative (Morse, 1995). Typically, sample size is determined arbitrary by qualitative researchers based on theoretical and thematic saturation points (Onwuegbuzie & Leech, 2007). 19 interviews were conducted, including 6 more to confirm the information already in existence. New interviews, however, had no effect on the coding scheme.

Thematic analysis was chosen for several reasons; the most important ones are: 1) Thematic analysis allows for holistic understanding by capturing any hidden themes, patterns, and overarching concepts. This allows for understanding complex social realities with respect to human behavior and also for capturing multiple perspectives present in the data. 2) Thematic analysis provides a structured framework in which the data can be easily and meaningfully organized and categorized, thus making it easy for the reader to understand social phenomena. 3) Thematic analysis enables the researchers to understand the subjective experiences, perspectives, and beliefs of individuals and is therefore more interpretive in nature. It captures the depth of social phenomena. Stake (1995) asserts that a qualitative investigation's interpretation—rather than merely the variables' identification—is what makes it unique. The data collector documents events objectively while also analyzing their meaning and rerouting the observation to support or deepen those interpretations. Researchers are urged by Yin (1994) to make every effort to present an analysis of outstanding quality.

Rigor and trustworthiness
In qualitative research, it is important to establish rigor and trustworthiness to ensure that the findings are reliable and valid. Rigor in the research was ensured by adhering to ethical requirements and keeping the process transparent via proper documentation of facts. The research was carefully designed by selecting the

institutions that were rich in information and the participants who were most knowledgeable about the phenomenon under consideration. Additionally, there was transparency in the procedures used for data collection and analysis. The interview protocol was developed to maintain consistency in information collection, and all the cases were analyzed in a consistent manner. The interview protocol and case protocol ensured the reliability of the data generation and analysis. Every interview was taped, and the transcripts were written as soon as they could be so that no important information was lost. Field notes in the form of memos were also generated to elaborate on any factual findings rather than simply exaggerating. Once the interviews were transcribed, the written texts were shared with the interviewees to make sure that the information they had provided was documented correctly; hence, the focus was on minimizing bias and maximizing the reliability of the research outcomes.

Internal validity is the degree to which the research's conclusions are accurate (Zikmund et al., 2010). As there are other possible inferences besides the ones the researcher is claiming, claiming validity in case study research is not an easy task. Both internal and external validity are emphasized by LeCompte and Goetz (1982). When it comes to case studies that are causal and explanatory, internal validity is crucial (Yin, 2003). Pattern matching and explanation building, according to Yin, can be used to assess a case study's internal validity. According to Eisenhardt (1989), various data combinations can work in concert with one another. The internal validity of the study was established by combining data collected from two different sources, such as interviewees and participant observation. The data from the interviews was validated by the data from participant observation. This technique refers to triangulation. There are several instances of such validation; however, as one interviewee stated, "*When a spouse shares the same occupation, each partner will give the other a free ride. Knowing that it is immoral and unethical, even then we are indifferent toward them."* This claim of the interviewee was confirmed by the participant's observation, and it was found that couples would support each other in the publication count by resorting to the act of freeriding. Usually the husband would accommodate his wife, when both were part of the faculty, by making her a co-author. This way, both would benefit from a single endeavor.

In addition to semi-structured interviews, participant observation techniques were used in the study to gather qualitative data. According to Yin (2003), participant observation, unstructured or semi-structured interviews, documents, archival records, and direct observations are the typical sources of qualitative data. A researcher took on the role of participant-observer. As a faculty member by occupation, she got to know the other professors and had a number of conversations, both unplanned and scheduled. In addition, participant observation "eliminates the possibility of being fooled by initial appearances by allowing the researcher to assess the consistency of people's statements, moods, and behavior at different times and in contrasting situations" (Cassell & Symon, 2004, p. 162). The researcher had to remove her emotions from the whole situation in order to prevent being influenced by her own whims and to obtain an accurate and complete picture by viewing it from a distance. This prevented any potential tendency toward bias in data collection. Participant observation involves the researcher becoming actively involved in the context or setting being studied. This approach makes it possible to observe social interactions, behaviors, and experiences firsthand, producing rich and thorough data.

Field notes were taken during observations and even during interviews. These filed notes were stored in the form of memos. Memos were a reflection of the researcher's ideas and interpretations, along with objective observations of actions, interactions, and events. Taking notes of the surrounding environment, nonverbal cues, and any other pertinent contextual information also became part of the qualitative data. These notes were expanded as soon as possible to eliminate any chance of errors of any kind, including those involving sensitive personal information. As a result, the convergence of results from various methods validated the study's findings and expanded on them. Using multiple sources of data is known as triangulation. In this study, triangulation was used to address the shortcoming that arises from using data from a single source, therefore increasing the validity of the findings. Usually, the external validity is weak in qualitative studies, including case studies (Yin, 1994). Because small samples prevent researchers from drawing larger and more robust generalizations, a case study design cannot be generalized from the sample to the population. Keeping this limitation in mind, the researchers aim was not an absolute generalization of the results to the population or to claim something with absolute certainty, but to understand the phenomenon of behavioral issues among higher education professionals. Thus, the appropriate strategy is "analytic generalization" rather than "statistical generalization," as suggested by Yin (2003). Using a multiple-case study design and replication logic increased the robustness of the research outcomes. Saunders (2009) suggests the use of triangulation, particularly in a case study approach, to assure that the data is close to the researcher's interpretation of it.

According to Johansson (2003), triangulation is a crucial tool for guaranteeing the validity of case study research. Mearman (2006) states that triangulation confirms consistency, which in turn increases the research's

credibility. Triangulation is necessary because it is ethically required to confirm the accuracy of the processes, which can be done by using multiple data sources (Yin, 2009).

The analysis was organized by following a series of steps, which are discussed below: The process produced a comprehensive set of descriptive and inferential codes, which were then woven into the pattern code or the analysis's central theme. Pattern matching and cross-case analysis were two analytical techniques that were used to uncover a wide range of perceived moral and ethical hazards among the faculty. Researchers found recurring patterns by coding and categorizing the observed data; these patterns were further examined to produce insightful conclusions. Iterative data coding required careful consideration on the part of the researcher to ensure coherence. The thematic analysis was executed using the following steps: First, the data were sorted, which means that the audio-video interviews underwent meticulous transcription, resulting in insightful articles. According to Miles and Huberman (1994), a write-up is an intelligent product that is simple to read, accurate editing, commenting, coding, and analysis using any analytical technique. The fragmentary statements of the interviewees were given flow by the researcher. This refers to instances during the interviews when the respondents were talking one-on-one and suddenly switched over to something else. All the transcriptions were stored in the form of write-ups and later transferred to the NVivo 9 data file for detailed analysis. In addition to these formal interviews, the data collected via participant observation in the form of field notes was also converted into memos and stored along with the interview write-ups. According to Miles and Huberman (1994), a memo does more than just report data; it conceptually connects two pieces of information to form meaningful clusters. This step was followed by familiarization with the data by the researchers. The write-ups were carefully read repeatedly to get the meaning out of them.

The generation of codes at three different levels came next. After the data was transferred to NVivo 9, the coding process started. This is where the in-depth analysis of the data started. Data coding was an iterative process that demanded careful thought from the researchers. In order to conduct a more thorough analysis, the researcher in a qualitative analysis must organize the data into systematic categories, according to Guba (1978). Based on the methods proposed by Miles and Huberman (1994) and Dey (1993), the coding technique used descriptive, interpretative, and pattern codes. Using the splitting technique, categories were divided into subcategories to enable more thorough analysis and the exploration of alternative meanings. According to Dey (1993), the "splitting" and "splicing" techniques made it easier to generate code at various levels. The author defines "splitting data" as breaking a category up into subcategories and then placing the individual data pieces under a particular subcategory. The "splicing" technique, which is the reverse of "splitting," is the second method employed by Dey (1993). By establishing links between the categories, splicing consolidates the data. Splicing is the process of bringing data together to create meaningful chunks and braiding them together for improved integration. In contrast, the splicing method involved combining data by linking related categories for better integration. NVivo's use made it easier to organize and manage codes during the laborious coding process. Initial coding was done manually, and subsequent coding was done using NVivo. The coding processes in the study cycle are referred to as filling, extending, bridging, and surfacing, according to Lincoln and Guba (1985) (Miles & Huberman, 1994). Codes are labels or tags that are applied to data chunks to give meaning to the case's descriptive or inferential information (Miles and Huberman, 1994). Table 2 shows the descriptive and inferential codes. According to Miles and Huberman (1994), descriptive codes involve minimal interpretation and assign a class of phenomena to a passage of text. One can approach the same passage of text in a more interpretive manner. The researchers developed interpretative codes by going over the transcriptions several times while keeping in mind the interview context.

Categories were thus created from descriptive codes that were later converted into pattern codes. Pattern codes made the categories sharper and clearly distinguishable, and their role became more defined in the analysis. In NVivo, a number of lower-level codes were stored under a higher-level code known as the parent code. By essentially moving the codes of the child nodes around in NVivo 9 to determine where they fit best, the analyst was able to change the location. The codes were later explained from both a technical and contextual angle after the preliminary coding was completed in NVivo. For example, as provided in Figure 2, teaching, research, and other tasks are parent codes representing behavioral problems in the faculty related to three different areas of their work. Under each parent code, there are a number of child codes. For example, under the parent code of teaching, there are a number of child codes that include punctuality, absenteeism, knowledge, course management, methodology, examination, and counseling. The parent codes represent the three main aspects of a faculty's work and make up the three categories: teaching, research, and other tasks. These categories are terminated into the main

theme, such as perceived behavioral problems in the faculty, as provided in Table 2. The entire coding process (Data→Codes→Categoreis→Theme) is summarized in Figure 1.
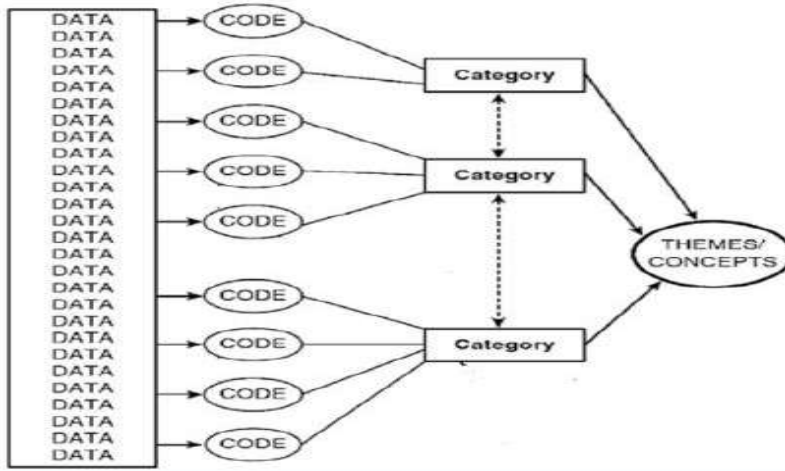

Figure 1: Three-Level Coding

Consequently, all of the primary categories or parent nodes were covered in brief first, followed by an explanation of each child node and its relationship to the parent node. The categories were gone over again and again to determine how they related to the study's goal and the literature review. Iterations arose throughout the entire process. Guba (1978) suggests that an evaluator must address the issue of "convergence" before concentrating on the analysis of qualitative data. Finding the patterns that fit together to classify the data is the problem of convergence. First, the analyst scans the data for "recurring regularities," or patterns that fit into distinct categories. According to the authors, these codes pull together a lot of material into meaningful and parsimonious units of analysis and are sort of a "meta-code." The arrangement of the codes at three different levels has been provided in Table 2.

Table 2

Three Level Coding

A short description of the code	Descriptive codes	Inferential codes/ categories	Pattern code/theme	Interview excerpts with the participant's code
Behavioral Problem	**BP**			
Lack of punctuality	**BP-Teah-** *Punc*	**BP-Teah** Behavioral problems related to teaching	Perceived ethical, moral, and behavioral issues in the faculty	*"The faculty members do not follow their class timings, which has become a university norm. The management is aware of the problem but could do less to address it. The students follow the footpaths of their instructors, who are their mentors and role models, and have adopted similar behaviors." (E2)*
				"I don't know what else we can do, to ensure the presence of the instructors in the scheduled classes, but I guess we are not alone in facing this dilemma." (B1)
				"The faculty's attendance and punctuality are twin problems that are difficult to control." (C1)
Outdated knowledge	**BP-Teah-** *Kwg*			*"....the faculty members do not want to trouble themselves and prefer to use notes and display slides that have been created ever since they started their teaching career." (A1)*
				Teaching at a higher level requires higher skills. Moreover, the course books that are followed by the educators are written by Western authors that reflect their local context. Many of the concepts that have been used in these books are totally unfamiliar to our culture and environment. When instructors follow these books from page to page, the students, instead of learning the concept and its application, are left to wonder." (B1)

		"In the undergraduate program, there has been a system for the last 50 years, and the same is being taught by the worst teachers. The course is outdated, and the faculty never bothers to provide updated knowledge to the students. Students are least interested in typical class lectures that are time-bound." (E1)
Inappropriate teaching methodology	**BP-Teah-** *TechMeth*	*"Non-interactive lectures bore the students, and they lose track of what the instructor is teaching in the class... When the instructors follow the books from page to page, the students, instead of learning concepts and their practical applications, are simply left to wonder."* (B1)
		"We have "book teachers, who even remember the page numbers because the same book is being taught over the years." (F2)
		"I know many teachers who do not want to be disturbed by the students during their lecture, and therefore discourage students from asking questions. Some faculty members mind it to the extent that if a student wants to engage in a discussion, the instructor will hush him/her by passing snide remarks, i.e., you think you are smarter than me." (D3)
Deception in course management	**BP-Teah-** *CourMgt*	*"Faculty members even fiddle with the course contents during class instruction. It is very difficult for the management to tell what a faculty member is teaching in the class when it comes to highly specialized modules."* (D3)
		"If a teacher misses out on a class due to any reason, the make-up classes are arranged just to cover up for the lost teaching hours and not necessarily for the purpose of student learning." (B3)
		The real problem is that it is very difficult to see what the teacher is teaching in the class and whether he or she is teaching the students what is supposed to be taught. Teachers take advantage of this situation, and they teach anything that is easy for them, which might or might not be the course requirement." (D3)
Indifference toward student counseling	**BP-Teah-** *StdCounl*	*"Students wait outside the offices of their teachers in hope of finding them, but are often disappointed. However, some lucky ones are able to catch them. We receive complaints from the students, but like them, we are also helpless in this regard."* (A3)
		"Personal ego-type things have corrupted the system." (B3)
		"Teachers have a bureaucratic approach towards the students, and many are indifferent towards the students' genuine problems." (E3)
Cheating the examination system	**BP-Teah-** *Exm*	*"Because their evaluation is based on the students' test results, faculty members often write simple papers in order to receive high marks. Creating simple papers will make it easier to mark transcripts and foster a fondness in students for future performance evaluations with higher scores. (C1)*
		"An incidence was reported by the students where the exam paper had two questions because the teacher taught only a couple of chapters in the entire semester. We trust the faculty, but many times it has let us down. Students come to us complaining about the teachers giving out questions in the exams about which they have no idea, as the teacher never taught these topics in the class." (C2)
Absenteeism	**BP-Teah-** *Abst*	*"Punctuality of the faculty is monitored, but regularity is not present due to the non-existence of a system that can ensure the presence of the faculty at the beginning and end of the class, such as there is no register where the faculty members can place their signatures to record their attendance. A faculty member may be absent from the scheduled classes for several days and can ensure that such acts go unnoticed."* (F2)
		One way to keep a check on the faculty is that the coordinators try

			to spread the workload in such a way that it stays on campus throughout working hours. In the absence of such an arrangement, faculty members might disappear after taking their classes in the morning." (F4)
Lack of research initiative due to an inappropriate culture	**BP-***RshInti*	**BP-Rsrh** Behavioral Problems Related to Research	*"In a power-oriented culture, people love to be more controlling than productive. People want to extract more power from administrative activities without realizing that their potential can be spent more productively elsewhere. There is no harm in becoming more powerful, as long as it does not adversely affect a person's sense of responsibility. Teachers are provided every opportunity for research, but they are less interested in capitalizing on those opportunities."* (A1) *"Faculty members are reluctant to take up research projects as they require a lot of effort and hard work. That is why, despite having the capability, [the] faculty members have to be urged for research endeavors."* (B2) *"We are pushing them [the faculty members] to write papers because this is in line with what the higher education commission is asking them for their career advancement, especially for the TTS faculty, whose research profile is carefully monitored."* (C1)
Inflation of the publication count	**BP-Rsrh-** *Pub*		*I have seen publications of hardly a couple of pages that are of low quality, which found their way into the local journals using personal links. A complete research project is also broken into parts, and each part is published as a separate publication. Some people consider it ethically correct, while others label it a moral hazard."* (B3) *"We need academia-industry linkages so that scholars can generate research findings that can be implemented in different sectors. I am afraid this much-needed link is still missing."* (F2)
Freeriding among the faculty	**BP-Rsrh-** *FreRid*		*"You scratch my back, and I will scratch yours. I guess it says all."* (D2) *"It's an age-old practice and is very much alive to this day. Mostly, the senior faculty is involved in "freeriding." The juniors include the names of their seniors, simply to please them because the latter can extend favors to the former in different ways."* (E3)
The problem of plagiarism	**BP-Rsrh-** *Plag*		*"What can be done if the defender of a system becomes the violator? Although the HEC has put in place the plagiarism software "Turnitin" in every university, the faculty and even the students know how to fiddle with this software. Plagiarism from the universities cannot be ruled out entirely, but it can be mitigated to a greater extent through proper grooming of the faculty."* (A1) *"Some faculty members steal the work of their students and rearrange things to give it a different look. Students can never identify their work because the scholars are masters of this act. This should not be generalized to all the faculty."* (D4)
Indifference Toward Students' Research	**BP-Rsrh-** S*tdRsh*		*"In the recent past, problems with the students' dissertation were pointed out by the Director, and the Research Coordinator was informed about the substandard quality of such reports; at the same time, teachers who were 160 Chapter 6 Depiction of the Problem of Moral Hazard in Educators supervising these students were issued a warning for faulty reports. Students' dissertations, not all, but there are many that do not qualify the quality bar set by the Institute and the HEC."* (F3)
Professional jealousy among the faculty	**BP-OtrTsk** *PrfJel*	**BP-OtrTsk** Behavioral Problems Related to Other Tasks	*"Professional jealousy is a cultural thing. Like other professions, it is quite common in academia."* (A1) *"The senior faculty exploits the junior faculty and will overburden them with a variety of tasks, leaving them with little time to focus on their teaching and research publications."* (A3)
Secondary employment by the faculty	**BP-OtrTsk** *SecEmp*		*"Some faculty members take dual jobs to earn more money, although dual employment is not allowed in universities."* (D2) *"There are faculty members who are running their private tuition centers. They are rarely seen on campus and are never available for their students… The problem of private tutoring seems to be the biggest challenge faced by the education sector."* (D1)

Reducing work pace (go-slow)	**BP-OtrTsk** *WrkPce*	*"The seniors are not allowing the juniors to exceed the work pace that has been set by them in the past."* *"Yes, I've also noticed that. I believe there may be a number of causes for this behavior…Faculty members may be overworked and exhausted, which causes them to slow down in order to handle the workload."* (G1)

Cross-case analysis is regarded by Yin (2003) as a traditional component of the multiple case study design. Data were gathered from various institutions for the current investigation. Every institution was examined individually at first, and then it was compared to other institutions to look for trends and a shared explanation of the phenomenon being examined. To improve the transparency and validity of the analysis, Yin (2003) methods of pattern matching and cross-case analysis were used. The cases were evaluated and contrasted with one another in light of the data that was available. The primary behavioral concerns related to efficient instruction that emerged from the data analysis were comparable to those found in the body of existing literature.

Results

RQ: What ethical and moral issues are present in the faculty, and how are these manifested?

Perceived moral and ethical issues in the faculty

The analysis shows that behavioral problems of all kinds are common among Pakistani HE faculty. The primary issues surrounding research, education, and other matters are listed below.

Behavioral issues related to teaching

Issues that surfaced concerning effective instruction are similar to those reported in the literature (Shoaib & Baruch, 2019; Ryan & Weinstein, 2009). Some similarities may be explained by the nature of teaching; these include things like not being on time, tardiness, liquid absenteeism, traditional methods, out-of-date material taught in class, poor course management, disregard for student counseling, and exam cheating.

Public HEIs appear to be tainted by the issue of academics' improper behavior. First, it seems that being absent from work frequently and being late are now accepted norms. The problem was stated by the director of QEC at one university in the following words:

"As is customary at universities, the faculty members adhere to the times assigned for their classes. Although they could do more to address the issue, the management is aware of it. As mentors and role models, the instructors set an example for the students, and they have adopted similar behaviors." (E2)

Despite being aware of the issue, the management does not appear to have made a sincere attempt to address it. The management's lack of ability to monitor academics' punctuality or its callous disregard for the issue could be the cause. Thus, HE institutions are not the only ones experiencing this issue. It is typical of the majority of professionals working in this field in Pakistan as well as all public sector establishments (Shahzad et al., 2011).

Second, Pakistani HEIs clearly practice passive classroom instruction. Academics continue to be mired in their dull lesson plans and ineffective teaching strategies. According to Zhu et al. (2013), there are irrational expectations that the current student body would gain from traditional methods of instruction. Students view these kinds of instructions as a waste of time, so they start using social media or their phones to browse the internet during class. As stated by a university's vice chancellor:

"Students become disinterested in non-interactive lectures and become disoriented from the instructor's lesson plan. Instead of teaching concepts and their real-world applications, teachers who blindly follow the books' pages leave their students to wonder." (B1)

Books by foreign authors, who are primarily from developed nations, are used for instructional purposes because there aren't enough books written by people in the area. Numerous ideas and frameworks found in foreign literature are strange and inappropriate in the local setting. Students have no choice but to memorize notes and textbooks in order to pass exams and get good grades because teachers fail to explain fundamental concepts to them. A higher education institution's deputy director expressed his concern in this way:

"Because they have been teaching the same book for years, our "book teachers even remember the page numbers." (F2)

Furthermore, students' future employability skills are given very little consideration in the current curricula, which are primarily focused on theoretical knowledge. In addition to being embarrassing for the graduates, this circumstance calls into question the caliber of HE. The interview excerpts make it clear that this is a "national problem" that affects the entire population of the country.

Third, course management is a topic that the interviewees highlighted as being important for effective teaching. The required course outlines are purposefully strayed from by the faculty. If the goal is to adjust the course material to the understanding level of the students, then some degree of content modification is acceptable. Course content modifications that are made maliciously or to the point where they alter a module's essence may be considered academic delinquency. This issue is known as information asymmetry in the literature. The following is how the chairman of a department at one university described the issue:

"During class instruction, faculty members even tamper with the course materials. When it comes to highly specialized modules, it is extremely difficult for management to know what a faculty member is teaching in the classroom." (D3)

The fourth challenge is exam cheating, which is one of the topics covered in academic dishonesty and incentives literature the most (Radda, 2009). "Teaching to the test" has been identified as the issue (Popham, 2001). The faculty occasionally inflates the test results of their students in various ways because it is a significant component of their performance evaluation and an observable metric (Ryan & Weinstein, 2009). Inflating test scores gives the management the false impression that the instructor has taught the course well and that the students have learned. Instructors do this for a variety of reasons, including making the students happy by giving them good grades, which will lead to higher evaluations from the students. Nevertheless, manipulating test results is merely pretentious and doesn't result in actual advancements in education. This is similar to putting a flamelight next to a thermometer in a frigid room; the thermometer reading rises but the room stays cold. Faculty members benefit from positive evaluations in terms of job security and promotions. For instance, a persistently low evaluation score of less than 60% may make it difficult for faculty members to be promoted to more senior roles, may even result in pay reductions until performance improves, and may even result in termination from their employment. According to a dean of the faculty at a university, academics also frequently make the personal mistake of being too lenient or strict, which causes the entire examination system to be abnormal.

"Because their evaluation is based on the students' test results, faculty members often write simple papers in order to receive high marks. Creating simple papers will make it easier to mark transcripts and foster a fondness in students for future performance evaluations with higher scores." (C1) .

Hoodbhoy (2003) laments the HE system, calling it a "lumpen graduate" factory that produces large numbers of students and viewing the exams as memory tests rather than learning experiences. Ignorant and uncaring, the students are incapable of constructing a coherent argument and have dreadful reading and writing abilities. These students don't often possess skills that are associated with higher education.

Moral and ethical issues related to research and publications

Academic research productivity has increased thanks to the HEC. HEIs are convinced to meet the goals of producing more publications and more research output. In Pakistan, the necessity for academics to carry out scholarly research has grown in the last several years (Garwe & Maganga, 2015). Academics are incentivized for completing the two tasks with incentives. A lot of professionals think academic research is pretentious, hazy, and irrelevant (Council of Europe Higher Education, 2019; DeAngelo et al., 2005). In Pakistani universities, usually, the faculty would publish in low-quality local journals for quick publications. The number of publications is considered one major output in considering the research success of academics; however, little consideration is given to the means of these publications and the impact they have on the community. Most publications happen due to personal and professional contacts rather than the actual content and quality of the research work. The state of research in Pakistani universities is of low quality (Muborakshoeva, 2015). The author further confirmed that "the culture of research at Pakistani universities and research conducted at some public universities was more in the line of being 'conformist' and 'routine', with a lack of rigorous 'critical approaches'" (p. 4). Any type of research is evaluated based on a variety of factors, including how well it serves academic and industrial purposes, creates jobs, and increases in a company's stock price (Hoodbhoy, 2009). The quality of research did not follow the same trend as the number of publications increased. The number of patents obtained by HEIs and impact-factor publications could be used to objectively evaluate the caliber of publications in particular fields. A cross-case analysis of research on unethical behaviors that are common in all six cases—which serve as representative examples of the general population—is discussed below.

First, the most prevalent problem in research is the faculty's *lack of research initiatives*. Collecting data requires finances, but unfortunately, lack of research funding and prolonged delays in securing funds result in poor research output due to compromise on empirical data collection, disheartening and discouraging the faculty from engaging in quality research. Furthermore, the interference of political and religious parties in the affairs of the universities hampers their proper functioning, which includes conducting research freely at the institutions (Muborakshoeva, 2015). The faculty is therefore reluctant to publish due to these reasons and has been accused of holding back information concerning their research findings from academia and policymakers. According to Zardari (2014), the faculty conduct research primarily for the sake of promotion, professional jealousy among the faculty, a lack of collaboration between the faculty members, a lack of research culture in universities, tortuous procedures for acquiring research funds, and a gap between academia and industry. The issue has been expressed by an academic coordinator of a HE institute in the following words:

"Academics work alone on their research projects, and the results belong only to the researcher until they are offered a chance to be published in a journal. The faculty is apathetic in this regard, despite the fact that using the institute's funds makes it necessary to share the research findings with those who can profit from them. If appropriate seminars had been held, more people would have shared the knowledge." (F3)

Pakistani academics *withhold their research findings*. They are cautious and shrewd when it comes to making sure their study results are shared on the appropriate forum, which may encourage policy improvisation. In addition to the issue of misrepresenting research findings, the interviewees highlighted the weakness in the connections between academia and industry, which has led to a stagnation of innovation. As a result, the importation of pre-made models and solutions—such as laws, policies, structures, and procedures, among others—as well as their corresponding implementations have been an absolute disaster, especially when the models and theories are not tailored to the specific cultural traits of the local community.

Some interviewees were concerned about the *disconnect between universities and industry*. The research focused on the disconnect between universities and society. Most of the universities do not seem to focus on the issues of society, and as a result, society is also not aware of the research activities being carried out by academia, consequently, according to Muborakshoeva (2015), universities are becoming 'ivory towers'. The problem has been expressed by a vice chancellor of a university in the following words:

"Universities require an open and democratic environment and culture to flourish. If we do not receive support from society, we cannot maintain any expectations from academia. Universities cannot be standalone entities. The existing environment is limiting the freedom of the universities and the academics in several aspects that are not healthy for research." (D1)

If linkages between industry and academia are strengthened in a knowledge-based economy, they may be strategically significant (Conlé et al., 2021). The existence of fake journals is common in Pakistan. Academics are making good use of bogus journals through overnight publishing (Hoodbhoy, 2005). A fake journal is also referred to as a 'clone journal', which mimics or copies the title of a reputable journal to gain credibility and help academics publish their research by charging a high publication fee.

A second practice of research fraud is the *inflation of the publication count*. This issue is referred to in literature as the least publishable unit since it only discloses partial truths, which makes it difficult for readers to understand. Academics turn to this behavior because publishing comes with financial rewards in addition to the promise of career advancement. The use of incentives to divert attention has disastrous results, ultimately leading to academics' inability to publish in esteemed journals. The pressure on increasing publication count is itself a sign of a'symbolic branding culture'. As one interviewee stated:

"Some publications are limited to a few poorly written pages that were published thanks to the researchers' personal connections. A whole research unit is also divided into smaller parts, which are then published as individual units. Ambivalence governs its morality." (B3)

Third, *freeriding* and *plagiarism* have emerged as the main risks associated with academic publishing and research. These problems are expressed in different forms among Pakistani academics. Freeriding is an act when an individual gets the benefit of some work done in a group but does not contribute anything towards that group activity. Freeriding is an act when an individual gets the benefit of some work done in a group but does not contribute anything towards that group activity, e.g., if someone publishes a research paper and adds the names of his friends, colleagues, or family members to get some sort of benefit out of it. Free riding has a trade-off since coworkers and even family members, if they work in the same field, credit each other as authors. Point scoring is

the main driver behind this behavior, as it allows faculty members to share the benefits of this unethical practice by assisting in determining eligibility for upward career movement. For example:

"When a husband and wife work in the same field, one will take advantage of the other. Even though we know it is wrong and unethical, we still don't care about them." (B4)

In academia, plagiarism is stealing another person's idea, concept, text, technique, process, or model, whether it has been published or unpublished, and presenting it to others in such a way as to claim its originality and make them look new with an intent to misguide the reader. Sometimes people engage in self-plagiarism, which refers to reproducing something that originally belonged to them but omits the formal citation for it. Self-plagiarism is usually unintentional, but it violates the copyrights of the publisher and is considered an academic sin. A major annoyance to research standards is plagiarism (Saeed et al., 2011). Many people have trouble understanding what plagiarism is, and they typically view it from a narrow perspective. The disregard for research ethics has led scholars to engage in plagiarism (Sahi, 2012), and it has become one of the major concerns (Cheah, 2016). The respondents admit that this practice exists, as one of them stated:

"Since they are unaware of the research code of ethics, faculty and students engage in unethical behavior without feeling ashamed." (F3)

Perceived other moral and ethical issues

Academics operate in cliques, and because of clique norms, they are under pressure to hide some of their colleagues' rebellious behavior. This study highlights additional behavioral problems that aren't always supported by the scant literature on the subject. Such deemed moral and ethical concerns put pressure on the productivity and efficacy of academics because they did not fall under the purview of either research or teaching. They are discussed below.

Go-slow: Because it is typically encountered by workers in the production sector, the problem is relatively unique in nature and unknown in academia (Holden, 1989). According to one interviewee, seniors stifle juniors' potential because they fear the latter would deviate from the standards that they have established over the years. The situation portrayed by the interviewee fits well with the definition of 'go-slow'.

"The senior faculty puts obstacles in the way of the younger faculty's desire to work at a faster pace. Everywhere this occurs, but particularly in public institutions." (A2)

Seniors have already attained the position(s) and life goal(s) they have always desired, but younger academics are upbeat and vivacious because they are excited about their future careers. As a result, the seniors are only interested in maintaining their current performance level and are no longer driven to perform better. The seniors attempt to slow down the juniors in order to stifle their performance because they feel insecure about their plateaued performance.

Other issues: Other problems have also been noted, including the absence of academics from their offices, arrogant self-esteem, and disregard for the difficulties faced by their students. The interviewees' main points center on building rapport with students and providing student counseling, which is typically viewed as a secondary aspect of effective teaching.

It is common for academics to maintain their egos and take a bureaucratic approach to solving their students' problems. This is understandable in that academics believe their knowledge makes them superior to other people. Some academics discourage students from visiting their offices as a result. All the moral and ethical issues identified in this study are presented in Figure 2.
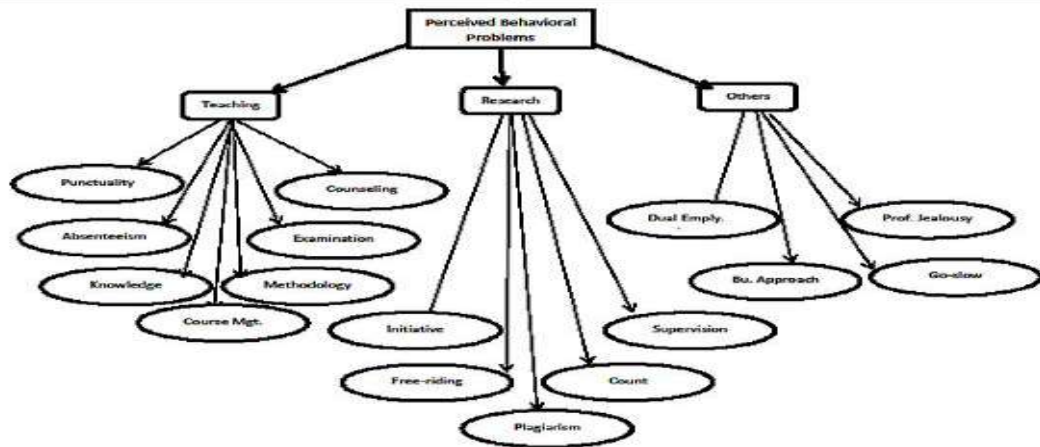
Figure 2: Coding in NVivo

Discussion

According to this study, inappropriate attitudes and values may be more to blame for Pakistani academics' intellectual advancement than the availability of resources. The majority of university instruction consists only of professors transcribing notes that they themselves had taken as students (Hoodbhoy, 2003). Mahmood and Shafique (2010) claim that while educators in developed nations train students to organize their thinking for future organizational decision-making, Pakistan's educational system has failed to instill logical and critical thinking in the minds of students (DeAngelo et al., 2005).

Ethical and moral problems among faculty can have a great impact on students' learning. The way instructors behave and engage with their students has a significant impact on the learning environment, student engagement and motivation, and academic success. Faculty members should make an effort to communicate more effectively with their students for their proper learning, both inside and outside the classroom (Henderson et al., 2019). For the learning process to be more effective and meaningful, faculty members should cultivate genuine passion and find ways to connect with students (Thornton et al., 2020). It is essential to adopt teaching strategies to accommodate the various learning preferences and needs of the students. To create an inclusive and student-centered learning environment, faculty members should adopt pedagogical approaches that include active learning, differentiated instruction, and a variety of assessment techniques. As pointed out by the respondents, the faculty have issues with time management. According to Uzir et al. (2020), time management issues can result in behavioral problems in the faculty. When the faculty is unable to manage their time properly, it can decrease their availability to the students, thus depriving them of the necessary coaching and mentoring, which is an important aspect of the faculty's job. Uzir et al. (2020) stress that the faculty should prioritize the students' learning and adopt time management strategies. By offering professional development opportunities, supporting networks, and promoting a culture of continuous improvement, institutions can address these behavioral issues. Faculty members can create a productive learning environment that encourages student engagement, motivation, and success by addressing these problems.

Faculty members also have moral and ethical problems with respect to research and publications, as pointed out by the respondents. This has an adverse effect on the objectivity and authority of academic work. Plagiarism, which is the unauthorized use or presentation of another person's thoughts, work, or words as one's own, is a significant problem (Tomar, 2022). Faculty members have a duty to uphold moral principles and make sure that original sources are given due credit. The truthful reporting of research results is another issue. The research findings are sometimes distorted, and readers may be misled by the fabrication or falsification of data, selective reporting, or cherry-picking of results (Singh et al., 2022). When conducting research, faculty members should put integrity and openness first while following strict procedures and accurately reporting their findings. Conflicts of interest have also been observed when faculty members have financial or personal interests that could influence their choices regarding their research and publications. Faculty members must disclose any potential conflicts of interest and uphold objectivity in their work. The faculty is reported to go for quick publications that are substandard by using their personal and professional contacts, thus earning award money as well as inflating their publication count. The integrity of the academic community and the reliability of research and publications

depend heavily on upholding ethical principles, abiding by institutional rules and codes of conduct, and encouraging responsible and open research practices.

Faculty members' perceptions of moral and ethical issues span many facets of their professional responsibilities in addition to teaching and research (Chan, 2023). The interaction between faculty and students is one important area of concern. It is morally required to uphold appropriate boundaries, refrain from favoritism, and guarantee that all students receive equal opportunities and treatment. Academic rigor and fairness should be promoted, whereas cheating and academic misconduct should be discouraged by faculty members (Chan, 2023). Another ethical issue is the prudent use of institutional resources, such as university resources or research funding (Mohiuddin et al., 2022). When using these resources, faculty members should act in a transparent, accountable, and fair manner. Senior faculty members must prioritize the mentoring and support needs of their junior faculty members rather than using political tactics that could endanger their careers. By sharing their knowledge, expertise, and experience, senior faculty can support their junior counterparts in achieving professional success. A successful academic culture can be encouraged by creating a welcoming and cooperative environment, which would benefit the higher education sector. Instead of focusing on organizational politics, healthy relationships should be encouraged to build a strong and thriving academic community. It is thus crucial for the faculty to uphold high moral and ethical standards in all facets of their professional conduct.

Implications
Theoretical implications

The current study has contributed to the body of knowledge by looking at the behavioral issues of the faculty from the perspective of management in the higher education sector. One of the conclusions points to the faculty—not the management—as the source of the issue with their lack of research initiative. By ignoring the restrictions that could make this activity more difficult, management can contribute equally to the issue. The same can be looked at in other workplace behavioral issues that employees may have.

This paper makes a significant additional contribution to knowledge by demonstrating how, although it benefits both the faculty and the employer, rewarding faculty members for publishing more works may inadvertently encourage unethical behavior among these professionals. Faculty members benefit from having more publications because it increases their chances of being promoted and earns them awards. As a result, faculty members will not be promoted to professorial positions if they do not publish. Furthermore, because the evaluation score is partially based on research and publications, it may cause financial loss as well as performance issues for the faculty. The university's ranking is also influenced by the number of publications produced by its faculty. Therefore, although their interests are aligned, the faculty's unethical behavior is causing agency issues, as discussed in detail in the analysis section.

Practical implications

First, managers operating in a similar environment to that of Pakistan should recognize that, while depressing practices that impair faculty performance effectiveness, incentives are necessary to instill optimism in them about the good work they are doing. As things stand right now, the incentive system is divorced from the cultural and contextual elements of the workplace. In actuality, it is promoting the incorrect aspects of students' academic performance, which heightens their propensity for opportunistic behavior. The knowledge-intensive industry has its own characteristics, and managers need to be aware of these. They should also create incentive programs that are directly linked to work behaviors that advance organizational goals. In order to prevent academics from fulfilling their job responsibilities only partially, it is necessary to properly design incentive systems for multiple-tasking jobs that will protect academics' proportionate effort allocation among diverse activities.

Second, managers should not wait for some formal exercise, which usually occurs after the semester has ended, but rather make frequent visits to the classrooms or engage in casual conversations with students about how their course instructors are doing throughout the semester. The main goal of performance management is to gather ongoing feedback on employees' work from various sources and to act promptly to correct instances of inefficiency or ineffectiveness in order to get performance back on track. This in no way lessens the value of yearly reviews or any other popular appraisal system within an organization.

Policy implications

Two primary areas of concern that emerged from the analysis were the provision of incentives for quantitative work and issues related to information asymmetry. As a matter of policy, the principal—here, the HEC—must exercise extreme caution when creating incentives for the faculty, since sometimes they encourage undesirable workplace behaviors rather than positive ones. Throughout our analysis, we have provided evidence of this by choosing to emphasize teaching over other factors, inflating the number of publications, and freeriding. This also applies to the agency theory's premise of information asymmetry.

Limitations and Future Research

The fact that the data for this study were gathered from single people due to gender inequality in this setting is its first limitation. Future studies may examine the views of both sexes to determine whether there are any gender disparities in how moral and ethical issues in HE are perceived. This study's conclusions are limited to higher education institutions in the public sector. As a result, we do not assert that the study's conclusions can be applied universally. Because of the differences in trends and professions, conclusions from HEIs in the public sector may not be easily applicable to other public sector organizations. To determine whether cultures and context have an impact on the prevalence of behavioral issues in HE faculty, similar research can be done in the future in both developed and developing nations. The results can then be compared.

Conclusion

There are several reasons for the deteriorating quality of higher education in Pakistan, some of which can be directly attributed to the academics, who are the main stakeholders and shoulder the primary responsibility for imparting quality education. However, this does not mean and would be rather unmerited to fix the entire liability on academics, as other stakeholders are also involved. Due to direct as well as indirect impacts on the quality of HE, the flaws in the system need to be rectified. A large number of instructors are involved in academic deception without ever being challenged (Hoodbhoy, 2003). We discuss further theoretical, practical, and policy implications below.

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Exploring Teachers' Perspectives on Utilizing Local Resources to Address Substance Abuse within Schools

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The purpose of this study was to identify the conceptual foundations that underlie school teachers' preferences for the utilization of personal resources to address the problem of substance abuse at the school level. Also, it was examined whether there is a relationship between the school teachers' perceived approaches with their gender, school type, and socioeconomic status. The participants in the study consisted of school teachers working in secondary schools located in four densely populated districts of Karachi, Pakistan. The research was conducted using a mixed-method methodology. Data were collected by using semi-structured interviews through personal visits. A qualitative analysis method was used to find out the perceptions of school teachers regarding their preferred approach to deal the issue of drug abuse. In addition, a quantitative analysis was performed to ascertain the relationship, if any, between participants' demographics and their preferred approach. The results show that the school teachers selected effective strategies to address this issue at the school level within their means, including emotional competence, psychological competence, religion, and monitoring.

Keywords: **s**ubstance abuse, emotional competence, psychological competence, religiosity

Drug abuse among youth is an enduring challenge worldwide, and it has been expanding over time (United Nations Office on Drugs and Crime [UNODC], 2012, 2014, 2020). Pakistan is also a victim of this growing trend, especially among students (Baloch, 2016; Khan, 2020; Qasim, 2018; Rahman, 2021). In the last two decades, school-going children are increasingly suffering from this crisis worldwide (Burns, 2014). As a result, they are suffering from physical problems, emotional disturbances, and a decline in educational success and productivity (Mojiz & Zaib, 2018). Studies show that about 90% of high school boys and 60% of girls of elite schools in Karachi aged 10-19, admitted that they have experimented with drugs and alcohol, for some time. The elite schools, parties, and private parties of youth are the centers of drug abuse (Niaz et al., 2005). The growing practice of drug abuse in educational institutions of the metropolitan cities of Pakistan has become a major threat to the health and well-being of students who use drugs freely and openly. According to Qasim (2018) nearly 50 percent of students at various educational institutions, especially in Islamabad, Lahore & Karachi, are drug abusers at some level, and most of these students belong to elite-class families, with no problem paying for purchases.

As far as the reasons are concerned, research shows that peer pressure plays a key role in getting children to start using drugs (Alhyas et al., 2015). Other major reasons include its easy availability, watching liquor (alcohol) consumption in TV dramas & films, as an experiment, as a rebellion against parents, to exhibit masculinity, to relieve stress, and to decrease anxiety (Alhyas et al., 2015; Barret, 1986; Sultan et al., 2018). The notable risk factors include emotional problems such as depression or anxiety. These factors reduce confidence levels, create a desire to escape, and feelings like insecurity, powerlessness, and hopelessness that ultimately lead to reduced coping skills (Byrne, 2000). The other key factor in this regard is the parent-child relationship. Kids often get things done by modeling their parents and the quality of parent-child relationships is the key factor. Those parents who maintain a warm, supportive relationship with their children are more likely to induce their values and morals in their children. But at the same time, it is not enough for parents to hold specific values about drug abuse; children are less likely to accept the values of reluctant parents, emotionally deprived, or overly strict/abusive (Simons et al., 1988).

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When it comes to the effects, drug abuse can cause physical problems, emotional disturbances, and a decline in educational success and productivity. Efforts to combat drug abuse must happen in schools because they have a great impact on conveying values, standards, and information to children. The effects of drug abuse have far-reaching consequences. They not only affect the users, but also their families, and the community as a whole (Cranford et al., 2011; Masood & Sahar, 2014; Short, 2010).

To deal with this issue, various programs have been set up at the school level to prevent this problem in economically developed countries. In Pakistan also different prevention programs have been started by the government and different NGOs to address this problem (Mufti, 1986; Shah et al., 2020) but these programs are not producing the anticipated results. Botvin (2000) concluded that these approaches may be effective when teachers involve at the local level in different populations. So, we need to have a look at the teacher/school level to combat this problem. It is very wisely said by Dutch philosopher Desiderius Erasmus that "Prevention is better than cure". It would be better to prevent this problem before it becomes uncontrollable. This study discusses the views of teachers about the role of schools and teachers to combat the existing problem and for its prevention.

A limited number of studies have explored this issue from the perspectives of teachers and its prevention at the school level with the help of the school community (Bonyani et al., 2018; Botvin, 2000). Thus, identifying the preventive strategies from the perceptions of teachers can help set up effective and culturally sensitive strategies for the prevention of substance abuse at the school level. It will eventually help educators, educational administrators, parents, and policymakers to be aware of the version of teachers on this issue. Moreover, it will help the decision-makers to develop strategies to cope with this problem effectively.

Objectives of the Study
The overall objective of this study was to gain a deeper understanding of the perceptions of teachers regarding the strategies to be used to prevent substance abuse in the schools of Karachi using locally available resources.

Research Question
How do teachers perceive the strategies to prevent substance abuse at the school level?
How do demographic differences of teachers impact their choice of strategy for dealing drug abuse?

Method
The research paradigm of this study was post-positivism. Therefore, a mixed-method approach was used. The mixed method is generally used because it combines the benefits of qualitative and quantitative methods while reducing their weaknesses (Creswell, 2017). The intent of this two-phase, sequential mixed methods study was to explore the approaches teachers can use to prevent drug abuse at the school level. The first phase was a qualitative exploration of the perceived approaches/strategies by collecting qualitative phenomenological data from teachers at the secondary school level. Findings from this qualitative phase were then used to test hypotheses that relate the choice of perceived approach/strategy with gender, socioeconomic status, and type of school.

Karachi is the biggest metropolitan city in Pakistan with a population of roughly 20 million, also called Mini Pakistan. For administrative purposes, the city is divided into seven districts. To ensure geographical representation, respondents from the four densely populated districts were included in the sample as highlighted in Table 1. Variation in socioeconomic backgrounds was achieved by including teachers from public and private schools and schools situated in areas of privileged and underprivileged economic classes of the city as shown in Table 1. A stratified random sampling technique was employed to select the sample. Data were collected through personal interviews with teachers teaching at the secondary school level.

Table 1
Demographic Information of the Participants

Variable		f
Subject	English/Urdu/Sindhi (Languages)	20
	Islamiat/Social Studies/Gen. Science/Pak Studies (Social Sciences)	25
	Math/Physics/Chemistry/Biology/Computer (Sciences)	25
Gender	Male	25
	Female	45
School Type	Private Schools offering SSC (Matriculation)*	50
	Private Schools offering GCE (O-Level)**	10
	Public Schools offering SSC (Matriculation)	10
Location	District East	20

	District South		20
	District Central		20
	District Korangi		10
Socioeconomic Status	Elite Class		10
	Middle Class		50
	Lower Middle		10
Total			70

* Secondary School Certificate Exam taken by Karachi Board of Secondary Education
**General Certificate of Education (Ordinary Level) Exam taken by Cambridge Assessment International Assessment

Data were collected from four out of seven districts of Karachi. Twenty respondents from each of district East, South, and Central were taken whereas ten respondents were taken from district Korangi and thus a sample of 70 teachers was selected.

To ensure the participation of each economic group in the sample, each district was further divided into areas of three major economic classes. Ten participants were selected from schools located in the high-income class of the city and charging a high fee, ten participants were from a low-income group and fifty participants were selected from schools located in middle-class income group areas and charging average fees from students. Ten public schools and sixty private schools were included in the sample from these areas as shown in Table 1.

Written consent was taken from the school's administration. One teacher was selected from each of these schools with the criteria of having a teaching experience of a minimum of 10 years at the secondary level. Data were collected through personal interviews. All interviews were audio-recorded with the permission of the respondents. The collected data were analyzed using the constant comparison method.

All audio-recorded interviews were transcribed verbatim and uploaded into NVivo (version 12.0) software that helped in data coding & categorization and allowed for searching of the interviews, re-sorting of material, and consistent redefining of codes to support the analysis process. SPSS (version 22) was used for quantitative data analysis. Tables and diagrams of categories and subcategories were also used to display relationships between identified categories.

Results

Personal interview protocols were carried out and a total of 70 teachers (25 males and 45 females) participated. Data analysis identified four main themes: (1) Emotional Competence; (2) Psychological Competence; (3) Religiosity and (4) Monitoring & Supervision.

Table 2
School Teachers' Views on Substance Abuse Prevention

Theme	Category	Subcategory	f
Emotional Competence	Self-worth	Students' endeavors	6
	Self-control	Refusal skills	4
	Coping skills	Emotional composure	4
	Relationship-management	Sense of belongingness	6
		Peer relationships	6
	Total		26
Psychological Competence	Alternatives of Pleasure	Indoor/outdoor sports	5
		Challenging tasks	1
		Co-curricular activities	8
	Stress Management	Exercise	6
		Hobbies	4
		Busy in productive activities	4
		Positive self-communication	3
	Intrapersonal Development	Big goals of life	2
		Active listener	1
	Total		34
Religiosity	Character development	Stories of heroes	8
	Religious values	Religious teachings	7
		Clear direction	1
	Purpose of life	Spirituality	1
		Usefulness	1
	Portray of drug abuse	Social taboo	3
	Total		21
Monitoring & Supervision	Awareness	Sessions for students/parents	8
	Deviant attitudes	School environment	6
		Parental support	6
	Protective measures	Anonymous helpline	1
		Strict disciplinary actions	4
	Total		25

As shown in Table 2, four themes: *emotional competence*, *psychological competence*, *religiosity*, and *monitoring & supervision* were identified from the school teachers' comments regarding the prevention of substance abuse. The first theme emotional competence (f= 13) was divided into four categories as self-worth (f=3), self-control (f=2), coping skills (f=2), and relationship management (f=6). The second theme, psychological competence (f=26), was subdivided into the categories of alternatives of pleasure (f=9), stress management (f=11), and interpersonal development (f=6). Another theme, is religiosity (f=18) character development (f=13), religious values (f=3), the purpose of life, and portrayal of drug abuse (f=2). Lastly, monitoring & supervision (f=24) was explained in the categories of awareness (f=8), deviant attitudes (f=12), and protective measures (f=4).

Emotional Competence: Many participants felt that students who use substances have poor emotional competence. Thus, they believed that drug abuse prevention can be made by developing the emotional competence of students.

To develop emotional competence, respondents shared the following views:
Students' emotional competence will likely have an impact on things like motivation and academic success.
> *"Emotional competence is even more important than Intelligence Quotient (IQ) as success in life depends more on it"*. (Male, 40 years)

Acceptance and giving importance to students' endeavors in class contribute to developing self-worth and emotional competence among students.
> *"Give importance and acceptance to students' efforts although they are trivial, in any area of development"*. (Female, 28 years)

The most important component of emotional competence is self-control.
> "*In my opinion, we should teach our students in which situation they have to say NO and how to say it*". (Female, 35 years)

Students who have stronger ties with their peers, parents, and teachers are more likely to have strong emotional skills.
> "*The students who become a victim of their peer's bullying are more likely to take drugs, therefore, we should take extra care on this issue and help such students adjust in class............*". (Female, 42 years)

Psychological Competence: Most of the respondents believed that students who use drugs or alcohol lack psychological competency. They, therefore, thought that fostering pupils' psychological competency could help avoid drug usage.

Respondents agreed on the following ideas for developing psychological competence:
Students' energies can be channeled and their outstanding skills can be expressed by involving them in challenging tasks, co-curricular activities, and outdoor or indoor games. This gives them other ways to enjoy life.
> *"........... Keep students busy in different activities, don't let them idle because an idle mind is the devil's workshop........."*. (Male, 52 years)

Games are crucial for fostering psychological competence.
> "*Schools should arrange competitions of outdoor and indoor games for the psychological health of students*". (Male, 35 years)
> "*In cities like Karachi, where there are few public grounds and the majority of school buildings lack outside play areas, accommodations can be made for indoor games like chess, scrabble, basketball, volleyball, and martial arts..........*". (Male, 30 years)

Physical exercise, hobbies, and other useful activities help students in managing stress, anxiety, and exhaustion.
> "*Teachers should provide opportunities for students to involve in healthy physical and mental activities during school time and motivate them to develop their interest in good hobbies at home*". (Female, 26 years)

Positive self-communication, positive inner speech, and big goals in life help in intrapersonal development.
> "*Always encourage your students, praise them even on their minor achievements, and make them feel that you are always thinking for them. Make them believe that they can do any task that other students can do. Help them to dream big in life and motivate them for hard work to achieve this goal*". (Female, 55 years)

Religiosity: The majority of respondents thought that pupils who abuse alcohol or drugs lacked religiosity. Therefore, they believed that encouraging religiosity among students through their character development could aid in preventing drug use.

The following suggestions for fostering religiosity were acknowledged by the respondents:
Teaching kids about Muslim historical figures can be extremely beneficial for developing their moral character and other religious and moral ideals.

"*Topics about the life of the Holy Prophet (PBUH) and the biographies of other Muslim heroes should be included in the subjects like Urdu, Islamic Studies, Social Studies, and Pakistan Studies*". (Female, 48 years)

A clear purpose in life can foster a sense of religiosity and spirituality in students.

"*Students who understand the meaning of life avoid participating in these types of activities. Make them understand the true purpose of life………*". (Male, 55 years)

The prevention of drug abuse can be aided by a consistent focus on the religion's prohibition of the practice.

"*…………Teachers should instill in the minds of students that use of drugs is prohibited (haram) in the religion….*". (Female, 25 years)

Monitoring & Supervision: The vast majority of respondents said that students abuse drugs due to a lack of monitoring and supervision. They thus believed that proper monitoring and supervision of students' activities could help to deter them from drug usage.

The respondents agreed with the following recommendations for monitoring and supervision of students in schools for the prevention of drug abuse:

Parent and student education workshops at the school can aid in the correct monitoring and supervision of kids.

"*Awareness sessions for students and their parents should be regularly conducted at schools……...*". (Female, 32 years)

The other protective measures that were agreed upon by the respondents were:

"*Screening out students through a blood test at schools……….....*". (Male, 38 years)

"*…………………encouraging whole school staff to have a part in reducing drug usage*". (Female, 40 years)

"*Conduct regular inspections of the student's things, including their bags and books*". (Male, 35 years)

"*Make arrangements to avoid mixing young with older age students during school*". (Female, 34 years)

"*……………… placing CCTV in the schools………….*". (Female, 27 years)

"*Strict disciplinary actions should be taken against those students who are found involved in it*". (Male, 50 years)

Table 3
Chi-Square Test on the Difference between Frequencies of School Teachers' Preferences for an Approach

Theme	Observed	Expected	Residual	Chi-Square	p-value
Emotional Competence	26	26.5	-0.5		
Psychological Competence	34	26.5	7.5	0.339	0.285
Religiosity	21	26.5	-5.5		
Monitoring & Supervision	25	26.5	-1.5		
Total	106	26.5			

A chi-square goodness-of-fit test was used to determine differences in teachers' preferences for drug-abuse prevention approaches. As shown in Table 3, the results show that there is no significant difference in school teachers' preferred approaches. All approaches are perceived as equally important.

Table 4
Chi-Square Test on Relationship between Gender and Teachers' Preference for an Approach

Themes		Gender		Total	df	chi-sq	p-value
		Male	Female				
Emotional	Observed	7	15	22			
Competence	Expected	7.9	14.1	22.0			
Psychological	Observed	8	12	20	3	0.357	0.948
Competence	Expected	7.1	12.9	20.0			
Religiosity	Observed	4	8	12			
	Expected	4.3	7.7	12.0			

Monitoring & Supervision	Observed	6	10	16
	Expected	5.7	10.3	16.0

The chi-square test of independence was used to examine the possible relationship between teachers' approach choice and gender. The findings presented in Table 4 show that there is no significant relationship between the teachers' gender and the approach they choose. Teachers of both genders believe these strategies to be equally beneficial.

Table 5

Chi-Square Test on Relationship between School Type and Teachers' Preference for an Approach

		School Type					
		Private	Public	Total	df	chi-sq	p-value
Emotional Competence	Observed	18	2	20			
	Expected	17.1	2.9	20.0			
Psychological Competence	Observed	21	3	24			
	Expected	20.6	3.4	24.0	3	2.48	0.478
Religiosity	Observed	11	4	15			
	Expected	12.9	2.1	15.0			
Monitoring & Supervision	Observed	10	1	11			
	Expected	9.4	1.6	11.0			

The chi-square test of independence was used to investigate the potential relationship between teachers' approach choices and the type of school they teach in (public or private). The results in Table 5 show that there is no relationship between the type of school where the teacher teaches and their preference for a specific approach. Teachers in both public and private schools believe these approaches are equally useful.

Table 6

Chi-Square Test on Relationship between Socioeconomic Status and Teachers' Preference for an Approach

		Socioeconomic Status						
		Elite	Middle	Lower Middle	Total	df	chi-sq	p-value
Emotional Competence	Observed	3	10	1	14			
	Expected	2.0	10.0	2.0	14.0			
Psychological Competence	Observed	4	13	2	19			
	Expected	2.7	13.6	2.7	19.0	6	4.24	0.643
Religiosity	Observed	1	11	4	16			
	Expected	2.3	11.4	2.3	16.0			
Monitoring & Supervision	Observed	2	16	3	21			
	Expected	3.0	15.0	3.0	2.0			

The chi-square test of independence was used to look into the potential relationship between teachers' approach choices and their socioeconomic status. The findings in Table 6 show that there is no relationship between socioeconomic status and preference for a particular approach. Teachers of all socioeconomic backgrounds believe that these approaches are equally useful.

Discussion

The main goal of this study was to better understand how teachers at Karachi's schools felt about the approaches that should be taken to avoid substance misuse. The findings reveal that teachers of schools situated in all areas were well aware of this issue and the dangers related with it. They shared their mind to curb this problem at their level. The findings led to the development of four main themes: emotional competence, psychological competence, religiosity, and monitoring and supervision. The results of the current study are in line with earlier studies that placed a strong emphasis on conceiving emotional intelligence as a desirable trait in a prevention-based paradigm for reducing high-risk behaviors (Coelho, 2012; Eikenberry, 2016; Ferreira et al., 2012). Fakaruddin and Nor (2020) found that avoiding venues associated with drug abuse, managing their thoughts, and avoiding non-supportive friends; are some methods that have helped adolescents to have better control of themselves. These findings are also aligned with the findings of this study. The results of this study also offer ideas and strategies to enhance the emotional competence of secondary-level students that are practical, economical, and can be used locally in different contexts to minimize substance abuse.

Another important key finding from this study was that pupils' development of psychological competence greatly aids in preventing drug abuse, which is consistent with those of other studies conducted around the world (Botvin, 2000; Simone et al., 2016). The participants of this study provided practical, affordable, and adaptable suggestions and methods for improving psychological competency in secondary school children to reduce substance usage.

Francis et al., (2019) concluded that religious influences lessen, and give young people resilience against engaging in behaviors like alcohol and other drug abuse. To investigate the link between religiosity and substance use, the researchers conducted a meta-analysis of 123 studies with more than 50,000 participants from all around the world. The findings revealed that lower rates of substance use among young people were associated with higher levels of religiosity, including participation in religious activities, prayer, and believe in God. In particular, the study discovered that young individuals who were more religious had lower drug, alcohol, and tobacco usage rates. These conclusions are also supported by the findings of this investigation. Similar findings have been reported by other researchers as well (Alhyas et al., 2015; Byrne, 2000; Engs & Kenneth, 1999; Miller et al., 2000).The results of this study are distinctive and significant since they offer some doable strategies for raising students' levels of religiosity.

The finding reported in this study that through active monitoring and supervision of young students during school hours, we can prevent or reduce this problem is also consistent with other research findings on this issue (Alhyas et al., 2015; Ahmed et al., 2020; Bonyani et al., 2018; Niaz et al., 2005). Participants of this study suggested different approaches to enhance vigilance during school hours.

Various studies have been carried out nationally and internationally to highlight the potential causes of this problem, but the findings of this mixed-method study are special and pertinent in that they offer methods for addressing the issue of substance abuse at a very local level (teachers and schools) without the involvement of governmental organizations. The qualitative thematic analysis's results were subjected to quantitative data analysis, which showed that there was no significant difference between the observed and expected frequencies of themes drawn from the sample with its different demographic features. Moreover, no significant relationship was found between the perceived approaches of teachers and their gender, type of school, and socioeconomic status. This implies that despite their different demographic backgrounds, the respondents were aware of the situation surrounding drug usage in schools, and its potential effects, and was consistent in their views regarding how to address this issue locally by personal means.

Limitations and Suggestions
The role of students, school administrators, and parents are not taken into account in the current study, which exclusively examines the function of teachers in reducing drug misuse. The only participants in the study were all from Karachi. As a result of their unique environments, teachers from distinct regions of Pakistan could have different experiences and perspectives. The purpose of this study, however, was not to generalize the findings; rather, it was to examine how a small sample of teachers saw substances and gain a better knowledge of the preventative measures that may be taken. However, it would be interesting if subsequent research could identify methods for preventing substance usage across a wider representative sample of Pakistan or in other neighboring nations. The development of a more thorough preventive program at schools would also benefit from investigating and comprehending the perspectives of students, school administrators, and parents.

Conclusion
The study was successful in determining how much teachers knew about substances and the potential health risks linked with their usage. Several protective variables are also identified based on the opinions of teachers who live in Karachi, Pakistan. With the assistance of teachers and school employees, these factors can direct the planning, designing, and implementation of preventative programs at the school level. According to the study's findings, multifaceted preventative programs that focus on emotional and psychological norms, religion's role, and school supervision would be more successful and have greater protective results. Different demographically based teachers were aware of the problem and prepared to address it on their own using personal resources. Teachers' readiness and willingness to share specific, doable solutions show that this is the best way to approach the issue.

Recommendations
Based on the findings of the study, it is recommended that school-based drug prevention programs involve all teachers and school staff in this task. As part of a curriculum that emphasizes emotional, psychological,

and religious aspects, teachers should also practice drug prevention techniques regularly. Consistent and careful monitoring and supervision should be a priority for school management.

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Prisons as Pathways to Rehabilitation or Criminality? A Case of Haripur Jail

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This research investigated the function of Pakistani jails, namely the Haripur Central Jail located in the Khyber-Pakhtunkhwa area, in the process of reintegrating ex-offenders. Semi-structured questionnaires and interviews were used in this study to collect data both qualitatively and quantitatively. The sample was N = 222 prisoners, including convicted individuals, prison employees, probation officials, and former convicts, participated in screening interviews. NVivo 12 was used for data analysis by employing a methodical approach to random sampling. The study found that in addition to moving prisons, prison officials needed a great deal of information, tools, and facilities. The study also showed that there was a lack of proper government and public assistance, as well as the necessity for uniform written laws controlling the reintegration of ex-offenders, particularly for those accused of offenses connected to terrorism. The study concluded that the only way to improve the prison's ability to rehabilitate inmates is to implement systemic reforms to the institution.

Keywords: rehabilitation, re-integration, Khyber-Pakhtunkhwa Prisons

A prisoner is a person who commits a crime and is sentenced to jail by the state's legal system for the appropriate and legal offense (Harigovind, 2013). The actual location where criminals are lawfully detained as retribution for their transgressions is called a prison. But prisons may also be used as places for rehabilitation so that inmates can reintegrate into society more easily. Because of this, it is sometimes known as a correctional institution, where criminals are detained following a conviction or while their cases are tried (Hanser, 2012; McShane & Williams, 2004). This study aim to evaluate how well Pakistani jails do rehabilitation, with a specific emphasis on the Khyber Pakhtunkhwa prison system, which is shown in the spatial map (figure 1).

Figure 1

Source: Prepared by PI (Geo Spatial Map of Haripur Jail created in Google Earth (Software)

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The research examines whether prisons promote rehabilitation or encourage further criminal activity by assessing the ability of the prison system to rehabilitate offenders. Our preliminary investigation revealed that overcrowding is the main factor impeding rehabilitation outcomes in Pakistani jails, according to earlier study findings. When the number of prisoners exceeds the space and resources available, the jail becomes overcrowded (Hough, Allen & Solomon, 2008). The 8th committee on crime prevention and criminal justice came to the conclusion in 2009 that prison overcrowding has a detrimental impact on convicts' conduct and health and reduces the likelihood that they would be rehabilitated. "Prisons shall provide all the accommodation facilities like sleeping place, health care, climate condition, minimum floor space, heating and ventilation and lighting," according to Standard Minimum Rules for the Treatment of Prisoners (SMR) Rule 10. However, prisoners sleep in cramped rooms with limited access to basic facilities or in shifts in many jails across the world.

This study looks at the severity and impact of overcrowding as well as other frequently ignored concerns. It also establishes a causal relationship between the issue of facility quality and the likelihood that released convicts will resort to crime. The study's findings indicate that there is more to the problem of recidivism and integration than just what happens within prisons. Instead, rehabilitation results are determined by the greater judicial system, which includes the investigation, prosecution, and adjudication processes.

Background

According to World Prison Brief (2019), Pakistan has the fifth-largest death row population and the 23rd-largest prison population globally. There are more inmates in jails than there is space for, as was previously said. The entire number of prisons in Pakistan, according to Malik (2019), was 120 throughout all four provinces, with a total capacity of 57,712 individuals. However, states have housed 77,275 convicts in violation of the SMR regulations, resulting in deplorable physical and social conditions for the detainees (Dawn, 2019). In Pakistan, 35.5% of prisoners are lawbreakers who have been sentenced to jail by the court system, while 64.5% are in pretrial or awaiting trial, according to a 2019 World jail Brief study. In terms of demographics, there are 98.6% men, 1.6% women, 1.7% adolescents, and 1.2% foreign nationals (World Prison Brief, 2019).

In 1950, Pakistan launched the first prison reform program, and Colonel Salamat Ullah, the former Inspector General of India, chaired the panel. After that, with the backing of the federal government, several committees were established to propose improvements in the various provinces of the nation. These recommendations were universally accepted, but owing to funding limitations, no significant work was finished on the jail system (Khan, 2010).

Pakistan has 120 jails total; There are 43 in KP, while 40 in Punjab, and 26 in Sindh, and 11 in Baluchistan. With 77,275 prisoners detained in these institutions, compared to the 57,712 maximum capacity allowed, these facilities are overcrowded (Malik, 2019). PPR Rule 745 clearly indicate that its is a provision to allot the 18 square meter space for every inmate in the prison, however these numbers are consistently declining (Niazi, 2016).

Distinction in jails

Several kinds of prisons is in Pakistan as table No. 1 indicates, all categories.

Table 1
Prison distinction in Pakistan

S.No	Prison	No of prisons
1	High security Prison (H.S.P.)	1
2	Central Jail (C.J.)	25
3	District Jail (D.J.)	51
4	Sub-Jail (S.J.)	21
5	Judicial lock-up (J.L.)	4
6	Bristol Institutions &Juvenile jail (B.I)	5
7	Youthful Offender industrial school (Y.I.)	6
8	Women jail (W.J.)	7
9	Open Prson (O.P)	1
10	Interment Center	5
	Total	120

Source: Prison Department (2020)

Distribution of prison Province wise

Pakistan has totally 20 prisons, table 2 reflect the necessary details.

Table 2
Details of prison in Provinces

S.No	Province	No. of Prison
1	Khyber Pakhtunkhwa	43
2	Punjab	40
3	Sindh	26
4	Baluchistan	11
	Total	120

Source: 2020 data from each of the four provinces' prison departments

Distribution according to Type

The distribution of prisons by kind throughout all four provinces is displayed in the following table.

Table 3
Distribution of various jail types per province States

Prison types	Punjab	Sindh	Khyber Pakhtunkhwa	Baluchistan
High security Prison	01	00	00	00
Central Jail	09	06	06	04
District Jail	25	11	08	07
Sub-Jail	02	00	19	00
Judicial lock-up	00	00	04	00
Bristol Institutions &Juvenile jail	02	00	01	00
Youthful Offender industrial school	00	05	00	00
Women jail	01	03	00	00
Open prison	00	01	00	00
Internment centre	00	00	05	00
Total	40	26	43	11

Source: 2020 data from each of the four provinces' prison departments

Province Wise Inmate's Population

According to the most recent statistics available from the province-level prison ministries, Pakistan's jails are permitted to hold 57,712 inmates; nevertheless, the current population of 77,275 convicts has caused the system to become overloaded.

Table 4
Population Statistics by Province for Prisons

S.no	Province	No. of Prison	Capacity	Prison Population
1	Punjab	40	32447	47077
2	Sindh	26	13038	17239
3	Khyber Pakhtunkhwa	43	9642	10871
4	Baluchistan	11	2585	2088
	Total	120	57712	77275

Source: 2020 data from each of the four provinces' prison departments

Details of Sentenced and Under-Trial Inmates

The number of prisoners awaiting trial exceeds that of those found guilty, despite the fact that female detainees make up a smaller proportion of all prison populations throughout all provinces.

Table 5
Detail of Population in Prisons

S.No	Province	Prison Population	Male	Female	Convicted	Under Trail
1	Punjab	47077	45646	769	20352	26725
2	Sindh	17239	16852	214	4808	12431
3	Khyber Pakhtunkhwa	10871	10670	201	3203	7668
4	Baluchistan	2088	2068	20	904	1184
	Total	77275	74870	1204	29267	48008

Source: Malik (2019).

OBJECTIVES:

• To ascertain if Central Jail Haripur unintentionally encourages a cycle of criminality among its inmates or if it successfully serves as a route to rehabilitation.
• To assess the usefulness and accessibility of educational and vocational possibilities, rehabilitation programs, and other services offered to inmates at Central Jail Haripur, as well as their contribution to the inmates' successful reintegration into society.
• To investigate the opinions and experiences of inmates at Central Jail Haripur using questionnaires or interviews in order to learn about their viewpoints on the influence of the prison environment on both criminal behavior and rehabilitation.

Researach Questions

Main Question:

1. Does Central Jail Haripur's prison population use it as a route to crime or rehabilitation?

Sub Question:

1. What aspects of Central Jail Haripur's offerings and services affect inmate recovery or delinquent conduct?

2. What is the relationship between an inmate's experiences and views of the prison environment and his or her likelihood of rehabilitation or reoffending following release?

Literature Review

According to Gul (2018), Pakistani jails use a punitive rather than rehabilitative approach to their work. He lists several problems that plague the prison system, including overcrowding, physical and emotional abuse, and a shortage of professionals who have received the necessary training. The paper offers a sound theoretical evaluation. It does not, however, offer any actual evidence to support its main claim.

Although reform committees have been established to address the issue and the government is aware that criminal conduct and jail conditions are frequently related, Akbar and Bhutta (2012) point out that not many concrete actions have been made in the wake of this realization.

In their comparative analysis of prisons in Pakistan and India, Bhutta and Siddiqu (2020) observe that, despite minor variations, prisoners in both nations deal with similar issues. The research by Ahmad, Khan and Shahid (2022) on juvenile offenders and Khan et al., (2012) on psychological depression in Peshawar's female prison population are also beneficial because they focus on a specific segment of the jail population.

Certain studies, like those by Ali et al., (2023) on criminal behavior in prisons as a gateway to long-term crime and Gorar and Zulfikar (2010) on the prevalence of hepatitis C among Pakistani prison population, concentrate on a particular topic linked to prisons. Interestingly, while several problems with Pakistani prisons have been identified, as has the ways in which these problems impact the rehabilitation of inmates, none of the studies have conducted an empirical investigation to establish a causal relationship, and as a result, no specific policy recommendations have been made.

Ali (2023) exposed the grave health issues in Khyber Pakhtunkhwa jails. He featured several patients with serious illnesses in his piece. Because of congestion and the dearth of medical services in the region, he found 138 people in the KP jails with Hepatitis C, 29 with Hepatitis B, 25 with AID, and 4 with TB.

Khan (2023) also drew attention to the worsening medical conditions seen in Khyber Pakhtunkhwa prisons, pointing out that Rule 18 of the prison regulations stipulates unequivocally that all inmates must have a medical examination within 24 hours of their incarceration. The Geneva Convention's Articles 30, 31, and 32 stress that inmates' health must always be guaranteed. "If any prisoner is suffering from a communicable disease, that prisoner will be confined in a separate cell."

Segalo and Sihlobo (2021) highlighted the lack of opportunities and educational resources accessible to the convicts in their study paper, "Rehabilitation of Inmate Young Offenders and the Education system: Offenders' Perspective in South Africa."

The psychopathic traits of criminals are examined by Shagufta (2020) as a means of mitigating the influence of criminal associates on criminal conduct. His study indicates that psychopathy moderates the relationship between criminal activity and the impact of criminal associates. While high degrees of egocentricity mitigated this link, offenders with high levels of antisocial qualities were more significantly impacted by their criminal acquaintances.

Theoretical Framework

The organizational responsibility theory of prison administration put out by Craig (2004) is used in this study. According to Craig, the goals of rehabilitating and reintegrating criminals into society, as well as keeping them apart from it, frequently clash. Prison officials frequently put control of inmates ahead of their rehabilitation due to the prison population's growth, the necessity to maintain the institutions' daily operations, and associated logistical challenges. This "control model of management" is successful in reducing the likelihood of disruptive behavior in prisons, but it ignores the rehabilitation requirements of the inmates.

The notion of organizational responsibility assumes that the inmates are accountable subordinates. The convicts are viewed as submissive because they are expected to adhere to the rules, which are administered and supervised by the prison staff, and as responsible because it is assumed that they are capable of understanding the need of their incarceration. More social cohesiveness between inmates and prison personnel is required under this strategy. Additionally, it permits a decision-making process in which inmates participate in some capacity. When the jail population thinks that their will has been taken into account in the programs and framework, rehabilitation is more likely to be effective. This is a result of their increased propensity to adhere to directions.

Method

Character of the Research

Under the 2015 United Nations Nelson Mandela Rules, the research aimed to illustrate the ground reality of the chosen Khyber Pukhtunkhwa jails orthogonal to the Central Jail of Haripur. This study's methodology was implemented, with a focus on the standard of Khyber Pakhtunkhwa's correctional and rehabilitation facilities as well as the procedures employed by the department. Additionally, this study was classified as both qualitative and quantitative, and data was gathered using closed-ended questionnaires with a Likert scale and dichotomous answers as well as semi-structured interviews.

Given that most people believe the central jail to be the site where prisoners serving sentences of more than seven years are housed, the choice of the central prison was chosen on purpose. The study was primarily concerned with the rehabilitation process as it relates to convicted individuals rather than those awaiting trial.

Population and Quantitative Data Sampling

All respondents—inmates, staff members of prisons, executives, staff members of prison staff training academies, and staff members of probation departments—were included in the study's population.

All of the Central Jail Haripur's sentenced inmates provided samples for the study.

The study employed both quantitative and qualitative data, with the purpose of collecting quantitative data via a closed-ended questionnaire. The questionnaire's design reflected the questions' nature by utilizing the Likert and Dichotomous scales. The questionnaire was divided into three pieces.
• A section on the staff; a section about the prisoners; and researcher's notes

The staff department was completed by the warder, chief warder, and head warder of CJ Haripur. The Central Jail Haripur inmates made up the inmates' section. The investigator came to his own conclusion on his observations.

There were 300 prisoners housed at Haripur Jail overall, and we utilized the Yamane Formula to choose a sample from among them, here N is the size of the population, n is size of sample, and e margin of error (0.05).

300/1+300(0.05) x 0.05 equals 300/1.75, which equals 171.

Through the use of a methodical random sample procedure, K=N/n=300/171=2

For this study, every other prisoner was chosen.

There were one seventy-one prisoners that were questioned in all. The remaining 51 interviews were done with probation officers, former prisoners, and prison personnel. Thirty of them were employees of the prison, and fifteen were probation officers. There were 222 interviews conducted, six of which were with former detainees of the Haripur jail.

Observation of researcher
On-site observations were carried out by researchers in Central Jail Haripur and the chosen prisons. The daily schedule, housing arrangements, relationships between prisoners and staff, and the availability and efficacy of rehabilitation programs are the main topics of observation.

Examination of the Questionnaire Information
The gathered data will be subjected to descriptive analysis in order to compile the study's conclusions.For analysis, the data gathered for this study was imported into NVivo 12. Using straightforward descriptive statistics, data was analyzed independently for the staff and patient components to provide a clear picture of the areas in need of quality improvement. Answers from both the employees and the prisoners were analyzed.

Sampling and Population for Qualitative Data
Gaining a comprehensive knowledge of the rehabilitation process may be facilitated by conducting interviews with the executive who is the responsible for the rehabilitation programme at Haripur Jail, the superintendent, and other KP prison department employees who develop and execute the rehabilitation plans. conducted interviews with every participant in the process, utilizing a representative sample of the total population.

Comprehensive Interviews:
All relevant parties who were accessible were interviewed in-depth, including probation officials, lawmakers, and administrators of Khyber Pakhtunkhwa's jail system. Respondents were able to share in-depth details about their viewpoints and experiences throughout these interviews.

Qualitative Data Analysis:

Preparing Data
NVivo 12 was used to import all qualitative data, including observational notes and interview transcripts. In NVivo, every dataset was given its own project folder.

The theoretical framework and research objectives served as the foundation for the development of a coding system. To represent concepts, ideas, and categories pertaining to rehabilitation techniques, nodes, or codes, were developed.

NVivo was used to code observational notes and in-depth interview transcripts. During the coding process, text segments were systematically tagged and sorted to find themes, patterns, and pertinent information.
Network Node Structure: To illustrate the connections between more general themes and sub-themes, NVivo's nodes were arranged hierarchically. Using this format makes it easier to analyze the material in an organized and methodical manner.

Investigation and Display of Data
1. Query tools: NVivo provides a variety of query tools, including as matrix queries, coding queries, and text searches. From the coded data, these queries were utilized to investigate node connections, spot trends, and glean insightful information.

2. Visualization: To graphically portray patterns and trends found during data analysis, NVivo offers visualization tools including word clouds, charts, and diagrams. The way the results were presented was improved by the usage of these graphics.

Information Fusion

To give a thorough grasp of the rehabilitation procedures, the results of the NVivo analysis were combined with the organizational responsibility theory.

Reporting and Record-Keeping

1. The NVivo analysis's findings were produced into an extensive findings report. Quotations, thematic summaries, visualizations, and interpretations are all included in this study.

2. To record coding choices, modifications made during analysis, and the reasoning behind them, a thorough audit trail was kept.

The current study focused heavily on NVivo 12 data processing and employed a rigorous qualitative research methodology. The insights into the rehabilitation procedures and mechanisms within Central Jail Haripur and other institutions in Khyber Pakhtunkhwa were made possible by NVivo's coding, analysis, and visualization capabilities. Using this approach, the study advances our knowledge of the rehabilitation program in prisons and how it affects the reintegration of released inmates.

BUDGET FOR THE KP PRISON DEPARTMENT AND COST OF INMATES

The Inspector General jail Directorate Peshawar gave the following information, which shows the cost of jail and per prisoner for the Khyber Pakthunkhwa Prison Department.

Table 6

Per prisoner Cost Including Development Budget

1	Total Current Budget	4,076,099,500
2	Total Development Budget	563,492,000
3	Total	4,639,591,500
4	Per Prisoner Cost (Per Annum)	4,639,591,500/14321=323,971
5	Per Prisoner Cost (per Day	323,971/365=887.591

Source: IG Prison Directorate, Peshawar (personal communication, January, 2023)

CLASSIFICATION OF PRISONERS IN KP

UNDER TRIALS   **CONVICTS**
80%   **20%**

Convicts 20%
Under trial 80%
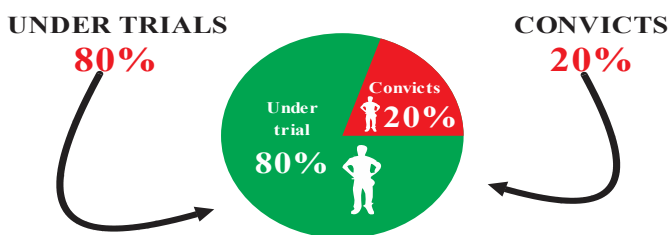
13500 Prisoners in Khyber Pakhtunkhwa, **10800** have **not yet been found guilty.** They **may be innocent**

Under Trails > *Convicts*

Source: IG Prison Directorate, Peshawar (personal communication, January, 2023)

An Analysis of The Impact of Haripur Jail's Prison on Long-Term Rehabilitation Outcomes

During British administration, the construction of Haripur Jail began in 1929. When it was finished in 1932, the correctional personnel received it (Tribune, 2015). The well-known Indian company Tata prepared the steel bars needed in construction. There is a story that the brick (Bhattas) businesses in Haripur were founded because the jail's brick was made on its premises.

The Tareen woman from Darwesh Village named Bani Begum gave the land. She was connected to former President Ayub Khan and Speaker of the Provincial Assembly Habibullah Khan Tareen, although not very closely. Family legend states that two things were required in order for the land to be granted.

1. The jail will not have gallows.

2) No woman convicts would be contained in this prison.

They asserted that, despite the fact that the agreement was never recorded, the government stood by its words until 2005, when a strong earthquake caused the structure to fall. Subsequently, the authorities padlocked the gallows across the nation and banned the practice of hanging individuals. One of the standards was not followed when the women's section was created in 2005 (Tribune, 2015). Bani Begum's second criterion was likewise broken in 2015 with the placement of the gallows in the jail and the application of the death penalty (Dawn, 2015).

The third-biggest jail in the province is called Haripur Central Jail. There were originally 1500 prison spaces available, but throughout time, additional were built to accommodate 1673 convicts. The jail has 890 kanals total, 200 of which are designated for the inmates. The remaining area is occupied by the Judges' Residence, the District Administration, the Garden, the Staff Colony, the Prison Staff Training Academy (PSTA), and the Water and Power Development Authority (WAPDA).
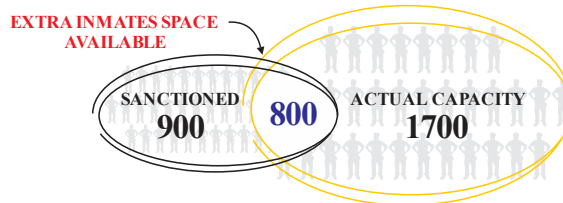
Data Retrieved from PI's Visit to Haripur Jail (2023)

The Jail Infrastructure's Current State
The jail has had CCTV installed to keep an eye on the grounds and surrounding region.

Healthcare Establishments
Theoretically, the research places a strong focus on managing prisoners and seeing to their health and well-being because these are fundamental rights of inmates. The team responsible for prison administration tends to the physical and psychological needs of the prisoners.

In order to assist prisoners and personnel, Central Jail Haripur has a hospital with 126 beds, a psychiatrist, Hakeem, qarshi Matab, one female doctor, two medical officers, and a senior medical officer. Important tests, such as HIV, TB, Hepatitis B and C, and screening tests, can be conducted in the jail's partially operable laboratory. A drug addiction detoxification clinic is in operation, and in the final few months of 2022, 75 prisoners underwent drug addiction detoxification.

There was minimal psychological counseling or training provided to prisoners. The prison administration claims that just one mental counselor has been allocated by the government to each of the division's facilities. There was no daily health check-up system in place for the inmates, even though a doctor was on duty. The prisoners said they were only provided one or two prescribed medications each day in the case of sickness. The psychologist visits the jail extremely infrequently. A crucial informant stated that the doctor did not frequently assess the prisoners.

Two wards are entirely filled with psychiatric patients. Certain patients are on the mend, while some are in the worst conceivable circumstances and can't even recognize themselves. Two ambulances are available for the patient.

Housing

Unfortunately, Sadly, it was discovered that the barracks were inadequate. The prison's lavatories and toilets were located in a corner of the barracks and smelled bad. The inmates said that they did not perceive the stench the same way as outsiders since they were used to it. In other places where people bathed or used the lavatory, ½ doors in toilets/restrooms one can easily seen through near to door. The prisoners dread becoming sick, so they take a bath once a month. Near the restrooms was a cooking area. Due to the ban on gas and electric heaters, the prisoners' sole means of cooking are coal or tiny pieces of wood. The walls of the barracks became yellow and black from the coal smoke. Several clotheslines were suspended from the walls of the barracks.

It doesn't appear like the walls had been painted white in a while. The prisoners said that the brisk winds were preventing them from sleeping at night. Occasionally, plastic was used to keep the cold air out, but it was eventually damaged. In the past, prisoners slept on the ground. The blankets/cloth were stuck tightly to the ground and were excessively dirty. Prisoners' demands for the researcher to make improvements to their barracks stem from their perception that they are hosting a visitor who is there to enhance prison conditions. They went on to state that their complexion had changed color due to the midsummer heat in the barracks.

Education

Students from Matric to M.A. can use formal education facilities. For this reason, there are regular teachers available. Inside the jail, staff arranges exams for students ranging from Matric to Master's level. The Haripur jail serves as both the location for BISE and university exams. For religious studies, a qualified religious instructor is also available.
• Free education from school to master's level.
• Board and University Examination Center (For Prisoners Only)

Library

The library has about 3,000 volumes for both academic and casual learning.

Industry

This factory gained notoriety for manufacturing fine furniture, towels, table linens, carpets, and rugs throughout the British Empire. Numerous gold awards and appreciation certificates were also awarded to it. However, as time passes, it begins to steadily decrease after 1970 and gradually at the ebb of closing and shut down in 2010. The rug/carpet and furniture industries are currently running at half capacity. There are clothes manufacturers, carpets, towels, and blacksmith shops that are broken.

Mess

The skilled cooks within the prison are responsible to prepare the food. Langar khana is the name of the cooking area. The researchers noticed an awful stink coming from the sewage water when they were in the langar. Not all of the caldrons were removed. The deputy superintendent said that we have to give each prisoner 10 grams of tomato because it appeared that the meal was of poor quality. This chart illustrates that one KG of tomatoes, a rather small amount, is served with every meal for 100 prisoners. The respondent gestures to the bread's weight. The bread was rather substantial in weight. Even though this kind of bread isn't meant for commercial usage, something went wrong. While visiting Langar, the researcher noticed a prisoner preparing flour for bread using his feet. He was sentenced to three years of hard labor. He asserted that it is quite difficult to prepare forty to fifty kg of flour by hand. The July heat caused his body to sweat, destroying the freshness of the bread and wheat. The water used to wash the food and silverware included no filter. Not only were all those engaged in the cooking process unclean, but their health was also compromised. In addition to food, the barracks lacked clean drinking water. The convicts receive their water from the same pipes that serve the lavatories and other amenities. Contaminated water is a major source of hepatitis in Pakistan. Consequently, it was found that the prisons used in the study were not properly cleaned.

*Famous Political leaders were detained at Haripur Jail*

Several well-known and well-known political figures, including Khawaja Asif (PML N), Sheikh Rasheed Ahmed (Awami Muslim League), Abdul Ghaffar Khan (Bacha Khan) (Awami National Party) and many others, were held in this jail.

The tasks and Accountabilities of Employees

CJ Haripur employs 695 people in total, of which 43 are officers and 652 are other staff members (such as warders and clerical personnel).

Staff is divided into two main parts, one is known as essential (uniform personnel's) they are responsible for security and management. Teachers, medical staff, IT staff (PMIS), administrative staff, and other supporting staff members operate in their respective fields and assist with the necessities.

CLASSIFICATION OF PRISONERS IN CJ HARIPUR

UNDER TRIALS 66%   CONVICTS 33%
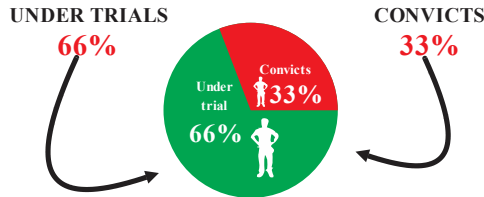
900 Prisoners in CJ Haripur, **600** have **not yet been found guilty.** They **may be innocent**

Under Trails > *Convicts*

at Central Jail Haripur

Data Retrieved from PI's Visit to Haripur Jail (2023)

PROGRAM FOR SKILL DEVELOPMENT

Programs for technical education and skill development were started in cooperation with national and international organizations, such as TEVTA, NAVTEC, NCHD, and United Nations agencies. Tailoring, designing of dresses, and classes for beautician were started for women offenders, programs teaching plumbing, electricianing, tailoring, computer skills, and technical education were taught to male inmates. The information about the courses offered in Central Jail Haripur is shown below.
2017–18 Session

Juvenile skill development programme was funded by UNCTITF; it began on October 19, 2017, and ended on January 20, 2018.

S.No	SDC central jail Haripur	Enrolled students	Pass Out	Remarks
	Technology	03 Months		
1	Electrical	14	07	10 Trainees were released from jail
2	Tailoring	16	13	
Total		30	20	

Data Retrieved from PI's Visit to Haripur Jail (2023)

3.4.2 The Prime Minister's Hunarmand Pakistan Program, "Skill for All,"

19-04-2021 to 30-11-2021

S.No	SDC central jail Haripur	Enrolled students	Pass Out	Remarks
	Technology	06 Months		
1	Certificate in Office Management	22	21	
2	Woodwork	16	14	
3	Carpet Weaving	16	14	
Total		54	49	
Grand Total		82	77	

Data Retrieved from PI's Visit to Haripur Jail (2023)

3.4.5 Trade and year-by-year pass-out trainees in Haripur's SDC Central Jail

S #.	Technology	2017-18	2018-19	2018-19	2019-20	2020-21	2021-22	Grand Total
1	Computer	0	12	09	09	09	21	**60**
2	Dress Making (Male)	13	08	13	13	15	13	**75**
3	Electrical	07	11	13	08	09	0	**48**
4	Wood Work	0	0	08	08	0	14	**30**
5	Pipe Fitting	0	0	0	09	0	0	**09**
6	Dress Making/ Hand Embroidery (Female)	0	0	0	08	07	08	**23**
7	Carpet Weaving	0	0	0	0	0	14	**14**
Total		**20**	**31**	**43**	**55**	**40**	**70**	**259**

Data Retrieved from PI's Visit to Haripur Jail (2023)

System for the Mnagement of Prison (psta)

The automated remission system, HR management, taken-based visitation system, and an online/computerized record of various prison staff members and inmates are all included in PMIS.

The International Narcotics and Law Enforcement Office (INL) of the U.S. Embassy plans to set up computer networking at 40 jail facilities spread throughout Khyber Pakhtunkhwa and the merging districts, with technical support from UNODC.

(Press Release; March 17, 2023) (Source: https://www.unodc.org/pakistan/en/training-for-prison-staff-in-khyber-pakhtunkhwa-funded by the US Embassy.html)

Training Academy for the Prison Staff (psta)

Established on the fifth day of August, 2022, the Prison Staff Training Academy (PSTA) may teach staff members ranging from Warder and Head Warder to Assistant Superintendent. It has classrooms, a multimedia projector, a library, hallways, and all the essentials. Following its swing and usefulness, 100 pupils were handed out in two waves.

This is the first jail personnel training academy in Khyber Pakhtunkhwa Province. It is supported by the local government, the court, criminologists, information technology professionals, lawyers, physical instructors (Karate/kungfu Master), Pakistan Prison Rule, and a host of competent voluntary faculty members. There is also a hostel available to students. For PSTA, there are four regular teachers. This academy offers all the amenities, including mattresses, a laundry room, an iron, a washing machine, kitchen utensils, and a martial arts team that is volunteered to teach pupils.

Cost Per Warder

"In a conversation with the researcher, the Commandant of the Prison Staff Training Academy disclosed that each trainee spends around Rs. 8,000 a month on meals. This number sheds light on how much money is set aside for meals and sustenance during training sessions. (At the time of interview)

*Source: Data retrieved from PSTA Haripur (personal communication, 2023)*

Contribution of Probation

S.No	District	Adult Offenders on Probation		Juvenile Offenders on Probation		Total
		Male	Female	Boys	Girls	
	Haripur	105	00	05	01	112

Source: Data retrieved from Haripur Probation (personal communication with Probation Officer Haripur, 2023)

Conclusion

The accommodations provided for prisoners were insufficient. The conditions in barracks were unsuitable for living. In addition to making the convicts indolent, their inability to form partnerships was made possible by their lack of industrial, technical, vocational, and educational abilities. Their bodies are affected physically by not playing sports, drills, games, or gymnastics. The unclean food that is supplied to the convicts from the community kitchen exacerbates their health issues. One reason for the poor quality of the cuisine is the shortage of experienced cooks. Insufficient oversight and purported government cooperation with prisoners permit them to engage in sexual assault, possess prohibited goods, and use drugs. When prisoners are sentenced to long terms for minor offenses, they grow to despise the law, which makes them more likely to commit crimes again. Prisoners endured labor that resembled slavery and had an effect on them. When prisoners receive insufficient medical care, their health deteriorates. The government, according to the jail management, was to fault for the detainees' misery. Governments are reluctant to provide skilled staff and other facilities to prisons since it seems that they have little interest in the rehabilitation of inmates. It was thus concluded that the prison system could only strive for the rehabilitation of convicts while hoping for a society free from crime.
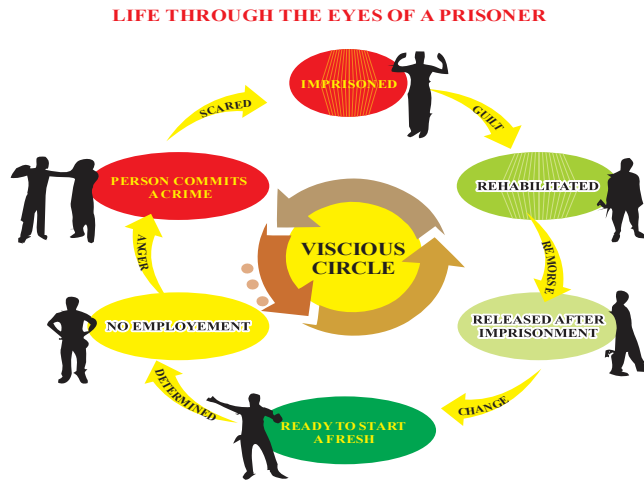
Source: Prepared by PI

The study's conclusions led to the following suggestions for an improved system that can help convicts get back on their feet.

1. It is necessary to thoroughly examine and balance the usage of digital surveillance by prisoners inside of barracks.
2. It is important to dissuade the authorities who are charged with plotting with prisoners.
3. To lower health problems, sanitary meals and a clean atmosphere should be provided.
4. Improvements to the available accommodations.
5. Equipping all jails with industrial, educational, vocational, and technological capabilities.
6. Offering psychological counseling to the inmates.
7. Keeping first-time criminals apart from other inmates
8. separating criminals into groups according to the seriousness of their offenses.

According to this study, by offering the aforementioned facilities, it is possible to give inmates hope that they would undergo rehabilitation and become law-abiding, productive members of society.

POLICY SUGGESTIONS

The administration's issues worsen the deplorable circumstances within the institution and among the detainees, in addition to any other prison-related issues. These problems impede offenders' ability to effectively rehabilitate. Not even the police and wardens, according to the jail administration, have ever received training on how to interact with convicts. The majority of them are unaware of the rules governing the jail. A lack of knowledge on how to deal with offenders exacerbates the predicament of inmates. These facilities offer industrial, technical, and educational training. These services are only offered by three jails in the province of Khyber Pakhtunkhwa: Central Prison Dera Ismail Khan, Bannu, and Haripur. Due to the absence of required facilities in province's prisons, the convicts grew apathetic and focused on establishing connections.
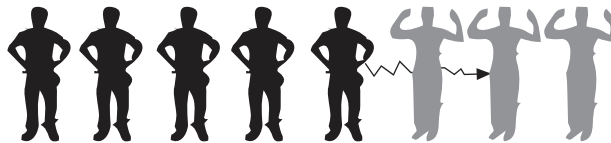
ABSENCE OF A TRANSITIONAL SPACE

**PHASE INSIDE
THE PRISON**

**PHASE OUTSIDE
THE PRISON**

3 out of **5** of these inmates, will return to prison within **5**
years of being released

Source: Prepared by PI

Psychological counseling is vital for convicts to mend their thoughts. It includes both mental treatment and anger control. Anger management can help minimize a number of offenses. The researchers did not see this type of counseling in the jails. The jail management also said that psychological counseling is lacking as the government is unable to provide a resident psychologist to advise prisoners. Only the province's main prison in Peshawar provides this kind of therapy. Dost Welfare Organization is a social welfare institution that provides counseling to convicts in Peshawar. The majority of the other jails lack this facility, which makes rehabilitation more difficult. The inmates' physical well-being is contingent upon their conditioning. Physical training includes sports, exercises, and gymnastics. For the inmates' physical education in the penitentiary, a physical education instructor is a must. The researchers have never witnessed prisoners engaging in any kind of physical activity while on their travels. The detainees were unaware of this type of training. The jail management felt that training was a dire need of the prisoners, but the prisons do not have these resources. The convicts don't have any physical trainers or drill instructors assigned to them by the authorities.

EFFECT OF THE PRISON ON SOCIETY

The people of the society are not open to accepting ex-prisoners back because of the social stigma which provides amongst them against the ex-prisoners.

Also maybe there is no platform which gives the ex-prisoners an opportunity to prove themselves and the show that they are changed and responsible citizens.
Because of this, there is a wide gap which exists between the people of the society and the ex-prisoners

No acceptance   Hope   Reintegration

Social stigma

SOCIETY   **EX-PRISONERS**

Source: Prepared by PI

Not enough money or sports materials are available to prisoners. The jails don't have the space to accommodate these programs in addition to the previously listed issues. They said that they seldom ever placed the inmates in the area that was easily accessible. The authorities went on to claim that the jails required workers in order to bolster their administration because the government was unable to provide them with qualified personnel. It will take time for PSTA to develop despite their best efforts. If they are unable to properly oversee the prisoners, district constables or border reserve police are sent. Both the terrible conditions within prisons and the failure of convict rehabilitation programs may be attributed to these issues.

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