

Explaining Dividend Policy Based on Investors' Behavioral Indicators: A Structural Equation Modeling Approach

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Abstract: Dividend policy is one of the key managerial decisions that directly affects shareholder satisfaction and firm value. Understanding investors' behavioral factors can play an important role in predicting and designing such policies. Therefore, the present study aimed to explain firms' dividend policy based on investors' behavioral indicators. This study employed a mixed-methods approach and was conducted in three consecutive stages. First, through qualitative analysis and the fuzzy Delphi method, the behavioral indicators affecting dividend policy were identified and refined. In the next stage, the initial conceptual model was developed and included five behavioral indicators of investors. In the third stage, five research hypotheses were tested using partial least squares structural equation modeling (PLS-SEM) and data from companies listed on the Tehran Stock Exchange during the 2014–2022 period. The findings showed that confidence and risk-taking, as well as cognitive and emotional biases, had a negative and significant effect on dividend policy, whereas social and group influences, financial psychology and risk, and financial management and decision-making had a positive and significant effect on it. These results emphasize that investors' behavioral and psychological factors play a considerable role in determining dividend policies, and that traditional financial analysis is incomplete without considering these dimensions. The findings of this study have implications for managers and financial policymakers. It is recommended that particular attention be paid to investors' behaviors and their cognitive and psychological biases in dividend-related decision-making.

Keywords: Dividend policy, investor behavior, confidence and risk-taking, financial psychology, cognitive biases.

1. Introduction

Dividend policy is one of the most consequential financial management decisions because it links corporate profitability, internal financing capacity, shareholder expectations, market signaling, and firm valuation. In conventional corporate finance, dividend decisions are often explained through profitability, liquidity, investment opportunities, ownership structure, agency considerations, information asymmetry, and risk exposure. However, the increasing complexity of capital markets has shown that financial decisions cannot be understood solely through rational, mechanical, or purely quantitative models. Investors do not always respond to dividend announcements, retained earnings, or payout changes in a fully rational manner; rather, their reactions are shaped by confidence, risk perception, cognitive shortcuts, emotional responses, social influence, prior experience, and expectations regarding future corporate performance. Therefore, dividend policy should be viewed not only as a

managerial and accounting decision but also as a behavioral-financial phenomenon embedded in investor psychology, market sentiment, and collective interpretation of corporate signals [1-3].

The behavioral finance perspective has expanded the analytical boundaries of corporate finance by challenging the assumption that investors always make decisions based on complete information and stable preferences. Behavioral finance argues that investors' decisions are affected by bounded rationality, heuristics, biases, emotions, and social interactions. In this framework, dividend policy becomes important because dividends are interpreted by investors as signals of financial strength, managerial confidence, risk control, and future cash-flow stability. Investors may prefer dividends because they perceive them as tangible returns, especially in uncertain markets, whereas other investors may support retained earnings when they believe that reinvestment can generate higher long-term value. These preferences are not merely financial calculations; they reflect differences in risk tolerance, overconfidence, emotional valuation of income, and sensitivity to market narratives [4-6].

In emerging markets, the behavioral explanation of dividend policy becomes even more important because such markets are often characterized by information asymmetry, volatility, speculative trading, limited transparency, and high sensitivity to social and psychological factors. Investors in these markets may rely more heavily on informal information, peer behavior, market rumors, and prior experiences when evaluating corporate payout decisions. In the Iranian capital market, studies have emphasized that investors' financial behaviors are shaped by a combination of cognitive, emotional, social, and contextual factors. These factors influence the way investors interpret market signals and make decisions regarding buying, selling, holding, and reacting to corporate policies. Accordingly, understanding dividend policy in the Tehran Stock Exchange requires attention to the indigenous behavioral environment of investors and the psychological foundations of financial decision-making [6-8].

One of the major behavioral factors influencing financial decisions is overconfidence. Overconfident investors and managers tend to overestimate their information, analytical ability, predictive accuracy, and control over future outcomes. In the context of dividend policy, overconfidence may affect expectations regarding future profitability and the perceived opportunity cost of distributing earnings. When decision-makers or influential investors are highly confident and risk-tolerant, they may prefer retaining earnings for investment, expansion, or speculative opportunities rather than distributing profits to shareholders. Overconfidence can also increase the tendency to underestimate risk and overvalue internal investment opportunities. Previous research has shown that overconfidence is a meaningful behavioral mechanism in financial decisions and may mediate the relationship between personality traits and financial distress, while theoretical models of overconfident investors show that such actors may make decisions without fully considering agency costs and information asymmetry [9-11].

Risk-taking is closely related to confidence but represents a distinct behavioral tendency. Investors and managers with higher risk tolerance may prefer growth-oriented strategies, reinvestment, or delayed payout in the expectation of greater future gains. Conversely, risk-averse investors may prefer stable dividends as a mechanism for reducing uncertainty and receiving immediate returns. Market instability, industry volatility, and financial fluctuations can further intensify the role of risk perception in dividend decisions. In sectors exposed to instability, managers may adopt more conservative dividend policies to preserve liquidity, while investors may interpret dividend stability as a sign of resilience. Therefore, risk and volatility are not only objective financial conditions but also subjectively interpreted realities that shape investor expectations and managerial choices [12-14].

Cognitive and emotional biases constitute another important group of behavioral indicators affecting investor reactions to dividend policies. Cognitive biases such as anchoring, representativeness, availability bias, confirmation bias, and loss aversion can distort investor evaluations of payout announcements and corporate

financial performance. Emotional biases may lead investors to overreact to dividend cuts, interpret stable dividends as reassurance, or attach excessive value to immediate cash returns. In stock markets, behavioral biases affect portfolio optimization, asset valuation, trading behavior, and investment preferences. Thus, dividend policy can be interpreted as a behavioral signal that interacts with investors' cognitive frames and emotional responses, particularly when uncertainty is high and investors lack complete confidence in market information [1, 3, 15].

Social and group influences also play a substantial role in shaping investor behavior. Investors rarely operate in isolation; their decisions are affected by peers, market communities, media narratives, expert opinions, online discussions, and institutional expectations. Herding behavior is especially important in capital markets because investors may imitate the behavior of others when they are uncertain about the value of available information. Dividend policy may therefore be shaped by social expectations: firms may distribute dividends to maintain investor trust, prevent negative market reactions, and conform to shareholder expectations. Research on herd behavior in the Tehran Stock Exchange has shown that personality traits, individual motivation, experience, and financial knowledge can influence investors' tendency to follow collective behavior, while broader behavioral finance studies have highlighted the importance of market forces and social influence in investor decision-making [2, 11, 16].

Managerial characteristics are equally important because dividend policy is ultimately approved and implemented through corporate decision-making structures. The psychological attributes, leadership style, personality traits, and decision-making orientation of managers can influence internal controls, financial transparency, risk management, and payout strategies. Studies have linked managerial personality traits to dividend policy, internal control weaknesses, financial distress, and corporate outcomes. These findings imply that dividend policy is not determined solely by firm-level accounting indicators; it is also affected by the behavioral characteristics of those who interpret financial information and make strategic choices. Therefore, the integration of managerial behavioral indicators with investor behavioral indicators can provide a more complete explanation of payout policy [9, 17, 18].

Corporate governance and control mechanisms provide another context within which behavioral factors influence dividend policy. Effective internal audit, internal control, board characteristics, and governance structures can reduce uncertainty, improve decision quality, and strengthen investor confidence. When governance mechanisms are stronger, firms may be better able to align dividend policy with long-term strategy and shareholder expectations. Conversely, weak internal controls may intensify behavioral reactions because investors may rely more on subjective signals and emotional interpretation. Research on internal audit attributes and internal control effectiveness indicates the importance of organizational control systems, while studies on board characteristics show that governance structures can shape innovation and strategic corporate decisions [19-21].

The relationship between dividend policy and sustainability has also become increasingly relevant in contemporary management and finance. Firms are expected not only to generate profit but also to demonstrate sustainable growth, technological adaptability, transparency, and social responsibility. In high-tech firms, dividend policy is increasingly examined in relation to sustainability and technological change, because firms must balance shareholder payout with investment in innovation and long-term transformation. Sustainability reporting research also shows that disclosure practices influence stakeholder perceptions and create new demands for transparency. These developments suggest that dividend policy is part of a broader corporate communication system through which firms communicate stability, accountability, and strategic priorities to investors [14, 20, 22].

CEO characteristics and corporate reputation further reinforce the behavioral and managerial dimensions of financial policy. Executives shape organizational priorities, stakeholder relationships, strategic risk-taking, and financial communication. CEO characteristics may influence financial performance and sustainable corporate growth, and these outcomes can affect dividend capacity and payout preferences. When investors evaluate dividend policy, they may also evaluate the credibility of managers, the reputation of the firm, and the consistency between declared strategy and financial behavior. In this sense, dividend policy operates as both a financial distribution mechanism and a reputational signal that can influence investor trust and market interpretation [17, 19, 23].

Investor protection is another factor that connects governance, trust, and dividend policy. In markets where investor protection is stronger, shareholders may feel more confident that managers will not misuse retained earnings, and firms may have more structured mechanisms for balancing reinvestment and payout. In weaker investor protection environments, dividends may become a mechanism for reducing agency concerns and reassuring shareholders that corporate earnings are being shared. Therefore, dividend policy can reflect both firm-level financial conditions and institutional-level investor protection mechanisms. Evidence from Asian markets indicates that investor protection is related to corporate dividend policy, supporting the argument that payout decisions must be examined within institutional and behavioral contexts [13].

The growth of digital assets and new forms of financial markets has also expanded the relevance of behavioral finance. Digital asset pricing and decentralized finance environments demonstrate that investor sentiment, perceived value, risk appetite, trust, and behavioral responses can strongly influence valuation and market participation. Although dividend policy traditionally concerns corporate earnings distribution, the behavioral mechanisms observed in digital asset markets are useful for understanding how investors interpret financial signals under uncertainty. Behavioral finance models developed for emerging financial environments can therefore enrich the explanation of investor reactions in conventional capital markets as well [3, 15, 24].

The behavioral dimension of financial decision-making is also supported by broader evidence from applied behavioral research, which shows that behavior, perception, emotion regulation, and decision processes can be systematically studied and modeled. Although some behavioral studies are conducted outside finance, they reinforce the general premise that human decisions are influenced by psychological skills, acceptability, contextual interpretation, and subjective experience. This broader behavioral foundation supports the use of mixed and structural approaches to examine how psychological constructs influence observable outcomes in organizational and financial settings [1, 2, 25].

Despite the growing body of behavioral finance research, several gaps remain in the literature on dividend policy. First, many studies examine dividend policy through traditional financial variables, while behavioral indicators are often treated as secondary or indirect factors. Second, studies that focus on investor behavior frequently analyze trading decisions, portfolio choice, risk-taking, or herding, but fewer studies integrate these behavioral indicators into a structural model explaining corporate dividend policy. Third, the Iranian capital market has specific institutional, economic, and behavioral characteristics that require localized empirical modeling rather than the direct application of models developed in other markets. Fourth, the simultaneous effects of confidence and risk-taking, cognitive and emotional biases, social and group influences, financial psychology and risk, and financial management and decision-making on dividend policy have not been sufficiently examined in an integrated framework [4, 5, 7, 8].

Given these gaps, a structural equation modeling approach is suitable because it allows the researcher to examine latent behavioral constructs and their direct effects on dividend policy within a comprehensive empirical framework. PLS-SEM is particularly appropriate when the aim is prediction, model validation, and assessment of complex relationships among latent variables. In the present study, the use of qualitative identification, fuzzy Delphi screening, and quantitative structural validation provides a systematic pathway for developing a behaviorally grounded model of dividend policy. This approach can help clarify whether investors' behavioral indicators explain meaningful variation in dividend policy and which behavioral factors have stronger positive or negative effects.

Accordingly, the aim of the present study was to explain the dividend policy of companies listed on the Tehran Stock Exchange based on investors' behavioral indicators using a structural equation modeling approach.

2. Methodology

The present study employed a mixed-methods approach. A mixed-methods approach combines qualitative and quantitative methods and allows the researcher first to identify and extract key concepts and indicators through qualitative methods. In this study, the process of identifying actions and indicators related to predicting dividend policy based on investors' behavioral indicators was conducted in three consecutive stages. In the first stage, through a comprehensive review of the theoretical literature and previous studies, the indicators and actions that directly or indirectly affect corporate dividend policies were extracted. In the second stage, the indicators and actions identified in the previous stage were evaluated and screened based on their compatibility and relevance to dividend policy prediction models. For this purpose, the fuzzy Delphi method was used, through which the opinions of 12 experts in the capital market, financial managers, and university professors specializing in behavioral finance were collected. Analysis of the data obtained from this stage led to the refinement of the indicators and a focus on the factors that had the greatest consistency with the dividend policy prediction model based on investor behavior. In this process, special attention was paid to the role of investors' personality and behavioral characteristics, such as risk propensity, herding behavior, investor optimism or pessimism, and temporal preference regarding corporate profitability.

Based on the conceptual model obtained from the qualitative section of the study, investors' behavioral indicators, including "cognitive and emotional biases," "confidence and risk-taking," "social and group influences," "financial management and decision-making," and "financial psychology and risk," were identified as factors affecting dividend policy.

In the third stage, for the validation and quantitative testing of the model, the researcher proposed five main hypotheses aimed at examining the effect of investors' behavioral indicators on dividend policy. After designing the questionnaire and collecting the data, these hypotheses were tested using structural equation modeling (PLS-SEM) in order to determine the structural validity of the model and the degree of influence of each factor on dividend policy. In this section, the statistical population included all companies listed on the Tehran Stock Exchange. The systematic elimination method was used to select the sample so that companies with complete and accessible information during the 2014–2022 period were included in the analysis. The required financial and behavioral data were extracted from financial reports, annual statements, and official statistical databases. Then, using SmartPLS software, the structural model of the study was tested to confirm the relationships among the identified variables and determine their degree of influence on dividend policy.

3. Findings and Results

After developing the qualitative model presented in the previous section, structural equation modeling (SEM) was used to determine whether the resulting model had the necessary validity, and the developed qualitative model was tested using real-world data.

Table 1. Measurement of the Model Variables

Number of Items	Component	Main Variable
6	Corporate financial performance	Dividend policies
3	Risk and financial volatility	Dividend policies
3	Ownership structure and dividend payout	Dividend policies
5	Financial performance and valuation	Dividend policies
4	Financial ratios and quantitative analyses	Dividend policies
6	Profit and liquidity ratios	Dividend policies
6	Return and profitability	Dividend policies
3	Dividend strategies	Dividend policies
5	Cognitive and emotional biases	Behavioral-personality characteristics of investors
5	Confidence and risk-taking	Behavioral-personality characteristics of investors
5	Social and group influences	Behavioral-personality characteristics of investors
5	Financial management and decision-making	Behavioral-personality characteristics of investors
5	Financial psychology and risk	Behavioral-personality characteristics of investors

Figure 1 shows the confirmatory factor analysis and structural equation model in the standardized coefficient estimation mode. According to Figure 1, investors' behavioral characteristics, including cognitive and emotional biases, confidence and risk-taking, social and group influences, financial management and decision-making, and financial psychology and risk, play the role of independent variables, while dividend policies play the role of the dependent variable. According to this model, the coefficients obtained from the relationships between latent variables (ellipses) and questionnaire items (rectangles) are called factor loadings, and the coefficients between the main variables are called path coefficients or structural equations.

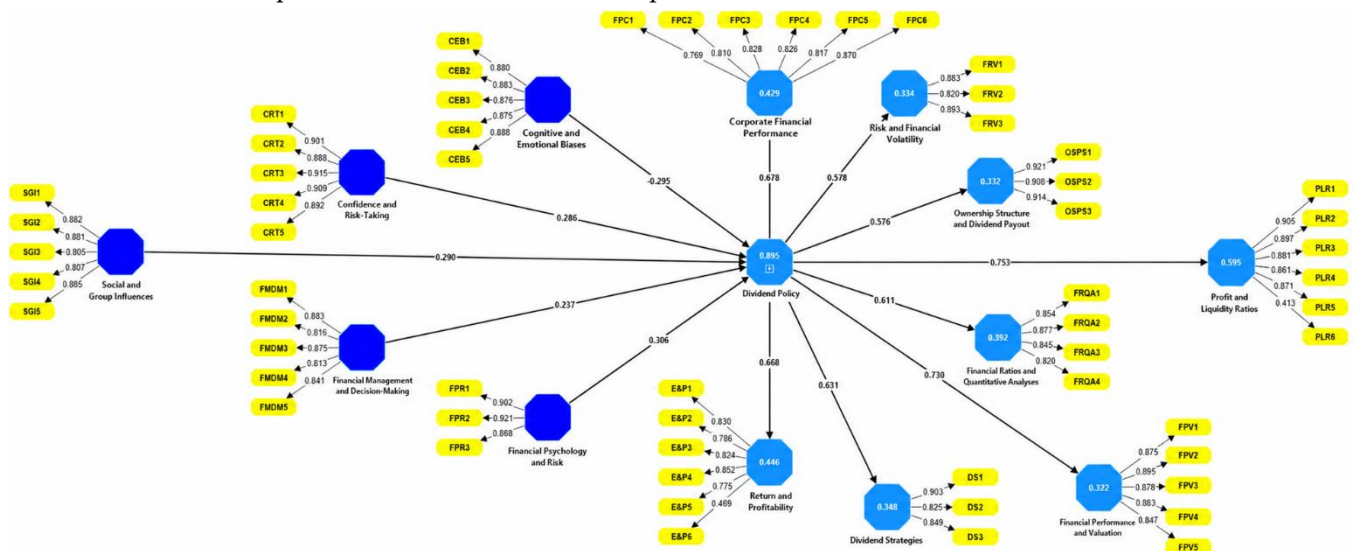


Figure 1. Model in the Standardized Coefficient Estimation Mode

Figure 2 tests all measurement equations, including factor loadings and path coefficients, using the t-statistic. According to this model, a factor loading is significant at the 95% confidence level if the t-statistic falls outside the range of -1.96 to $+1.96$.

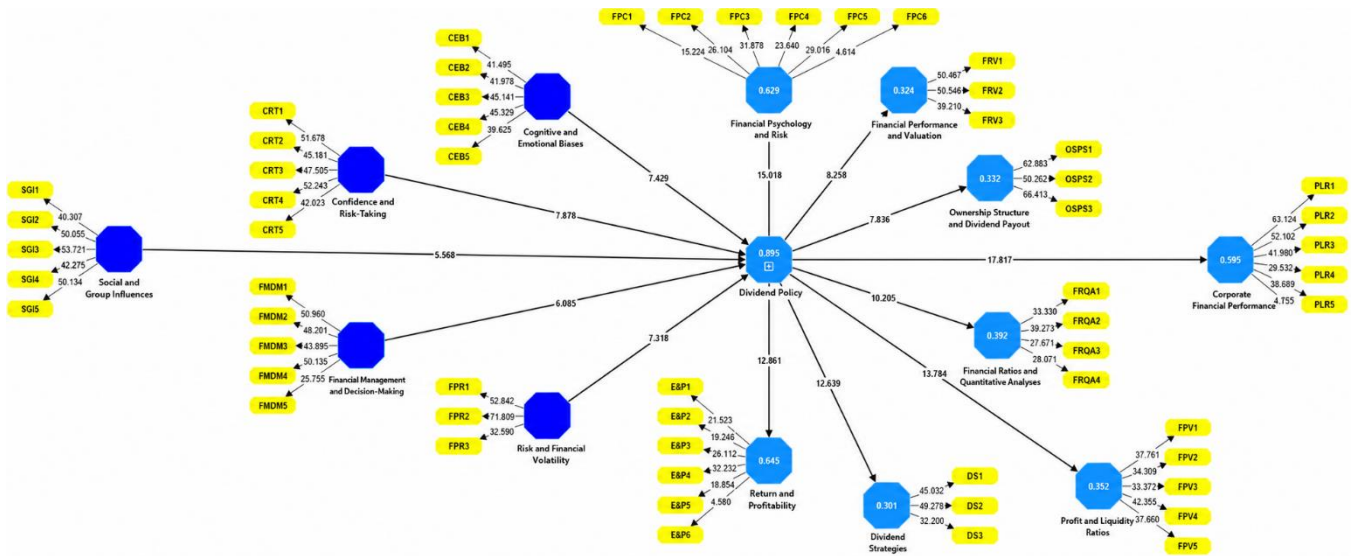


Figure 2. Overall Model in the Significance Coefficient Estimation Mode

Table 2. Results of Standardized Factor Loadings

Main Variable	Component	Item	Factor Loading	t-Statistic	Significance Level	Validity Result	VIF
Personality-behavioral characteristics	Cognitive and emotional biases	CEB1	0.890	41.465	0.001	Confirmed	3.220
Personality-behavioral characteristics	Cognitive and emotional biases	CEB2	0.883	41.978	0.001	Confirmed	2.998
Personality-behavioral characteristics	Cognitive and emotional biases	CEB3	0.876	45.141	0.001	Confirmed	2.892
Personality-behavioral characteristics	Cognitive and emotional biases	CEB4	0.875	45.399	0.001	Confirmed	2.862
Personality-behavioral characteristics	Cognitive and emotional biases	CEB5	0.888	39.423	0.001	Confirmed	3.201
Personality-behavioral characteristics	Confidence and risk-taking	CRT1	0.901	51.478	0.001	Confirmed	3.502
Personality-behavioral characteristics	Confidence and risk-taking	CRT2	0.888	45.181	0.001	Confirmed	3.143
Personality-behavioral characteristics	Confidence and risk-taking	CRT3	0.915	67.505	0.001	Confirmed	3.946
Personality-behavioral characteristics	Confidence and risk-taking	CRT4	0.908	62.243	0.001	Confirmed	3.824
Personality-behavioral characteristics	Confidence and risk-taking	CRT5	0.895	42.053	0.001	Confirmed	3.424
Personality-behavioral characteristics	Social and group influences	SGI1	0.882	40.307	0.001	Confirmed	3.112
Personality-behavioral characteristics	Social and group influences	SGI2	0.888	50.055	0.001	Confirmed	3.187
Personality-behavioral characteristics	Social and group influences	SGI3	0.895	53.721	0.001	Confirmed	3.285
Personality-behavioral characteristics	Social and group influences	SGI4	0.867	42.275	0.001	Confirmed	2.802
Personality-behavioral characteristics	Social and group influences	SGI5	0.886	50.194	0.001	Confirmed	3.170
Personality-behavioral characteristics	Financial management and decision-making	FMDM1	0.883	50.460	0.001	Confirmed	2.861

Personality-behavioral characteristics	Financial management and decision-making	FMDM2	0.885	48.201	0.001	Confirmed	3.034
Personality-behavioral characteristics	Financial management and decision-making	FMDM3	0.875	43.865	0.001	Confirmed	2.885
Personality-behavioral characteristics	Financial management and decision-making	FMDM4	0.833	28.335	0.001	Confirmed	2.216
Personality-behavioral characteristics	Financial management and decision-making	FMDM5	0.841	25.755	0.001	Confirmed	2.397
Personality-behavioral characteristics	Financial psychology and risk	FPR1	0.909	52.842	0.001	Confirmed	2.755
Personality-behavioral characteristics	Financial psychology and risk	FPR2	0.923	71.062	0.001	Confirmed	2.687
Personality-behavioral characteristics	Financial psychology and risk	FPR3	0.868	32.509	0.001	Confirmed	2.219
Dividend policy	Dividend strategies	DS1	0.905	65.052	0.001	Confirmed	2.333
Dividend policy	Dividend strategies	DS2	0.875	39.276	0.001	Confirmed	2.850
Dividend policy	Dividend strategies	DS3	0.849	32.200	0.001	Confirmed	1.891
Dividend policy	Return and profitability	E&P1	0.800	21.522	0.001	Confirmed	3.285
Dividend policy	Return and profitability	E&P2	0.786	19.246	0.001	Confirmed	2.138
Dividend policy	Return and profitability	E&P3	0.824	26.112	0.001	Confirmed	3.110
Dividend policy	Return and profitability	E&P4	0.855	32.232	0.001	Confirmed	2.669
Dividend policy	Return and profitability	E&P5	0.775	18.854	0.001	Confirmed	2.564
Dividend policy	Return and profitability	E&P6	0.409	4.580	0.001	Confirmed	2.060
Dividend policy	Corporate financial performance	FPC1	0.769	15.234	0.001	Confirmed	1.954
Dividend policy	Corporate financial performance	FPC2	0.810	26.104	0.001	Confirmed	3.529
Dividend policy	Corporate financial performance	FPC3	0.836	31.678	0.001	Confirmed	2.714
Dividend policy	Corporate financial performance	FPC4	0.839	23.842	0.001	Confirmed	2.839
Dividend policy	Corporate financial performance	FPC5	0.807	20.019	0.001	Confirmed	3.818
Dividend policy	Corporate financial performance	FPC6	0.370	4.814	0.001	Confirmed	1.760
Dividend policy	Financial performance and valuation	FPV1	0.875	37.767	0.001	Confirmed	3.556
Dividend policy	Financial performance and valuation	FPV2	0.863	34.509	0.001	Confirmed	3.436
Dividend policy	Financial performance and valuation	FPV3	0.878	38.372	0.001	Confirmed	3.606
Dividend policy	Financial performance and valuation	FPV4	0.883	43.355	0.001	Confirmed	3.937
Dividend policy	Financial performance and valuation	FPV5	0.847	37.646	0.001	Confirmed	3.175
Dividend policy	Financial ratios and quantitative analyses	FRQA1	0.854	33.330	0.001	Confirmed	3.179
Dividend policy	Financial ratios and quantitative analyses	FRQA2	0.877	39.273	0.001	Confirmed	3.666
Dividend policy	Financial ratios and quantitative analyses	FRQA3	0.845	27.671	0.001	Confirmed	3.381
Dividend policy	Financial ratios and quantitative analyses	FRQA4	0.892	59.071	0.001	Confirmed	3.574
Dividend policy	Risk and financial volatility	FRV1	0.893	50.407	0.001	Confirmed	2.222
Dividend policy	Risk and financial volatility	FRV2	0.880	39.546	0.001	Confirmed	2.257

Dividend policy	Risk and financial volatility	FRV3	0.885	39.210	0.001	Confirmed	2.149
Dividend policy	Ownership structure and dividend payout	OSPS1	0.921	62.885	0.001	Confirmed	3.018
Dividend policy	Ownership structure and dividend payout	OSPS2	0.908	50.267	0.001	Confirmed	4.229
Dividend policy	Ownership structure and dividend payout	OSPS3	0.914	66.418	0.001	Confirmed	3.548
Dividend policy	Profit and liquidity ratios	PLR1	0.905	53.124	0.001	Confirmed	4.133
Dividend policy	Profit and liquidity ratios	PLR2	0.897	55.102	0.001	Confirmed	5.308
Dividend policy	Profit and liquidity ratios	PLR3	0.881	41.940	0.001	Confirmed	5.106
Dividend policy	Profit and liquidity ratios	PLR4	0.851	29.532	0.001	Confirmed	3.301
Dividend policy	Profit and liquidity ratios	PLR5	0.871	38.686	0.001	Confirmed	3.060
Dividend policy	Profit and liquidity ratios	PLR6	0.413	4.757	0.001	Confirmed	1.139

Based on the results presented in the table, all main variables and their subcomponents were confirmed in terms of validity and collinearity. The factor loadings of all items were above 0.4, and all corresponding t-statistics were significant at an error level of 0.001, indicating the high capability of each item to measure its respective component. The collinearity coefficient (VIF) for all items was below 5; therefore, no multicollinearity problem was observed, which strengthens the reliability of the model results.

Table 3. Assessment of the Convergent Validity of the Model

Latent Variable	Cronbach's Alpha CA > 0.7	Composite Reliability CR > 0.7	Average Variance Extracted AVE > 0.5
Dividend strategies	0.849	0.909	0.768
Confidence and risk-taking	0.942	0.956	0.813
Return and profitability	0.836	0.885	0.572
Social and group influences	0.930	0.947	0.781
Financial psychology and risk	0.884	0.928	0.811
Risk and financial volatility	0.863	0.916	0.784
Ownership structure and dividend payout	0.902	0.939	0.836
Cognitive and emotional biases	0.929	0.946	0.779
Corporate financial performance	0.833	0.885	0.573
Financial performance and valuation	0.919	0.939	0.755
Financial management and decision-making	0.915	0.936	0.746
Profit and liquidity ratios	0.890	0.923	0.676
Financial ratios and quantitative analyses	0.890	0.924	0.752
Dividend policy	0.933	0.939	0.602

Based on the results presented, all latent variables were confirmed in terms of reliability and construct validity. Cronbach's alpha values for all variables were above 0.7, indicating adequate internal consistency of the items. In addition, the composite reliability coefficient for all variables was above 0.7, confirming the strong reliability of the model. The average variance extracted (AVE) for all variables was above 0.5, indicating that more than half of the variance of each variable was explained by its related components and that convergent validity was established.

Table 4. Fornell–Larcker Matrix

Latent Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1	0.88												
2	-0.36	0.90											
3	0.41	-0.42	0.76										
4	0.44	-0.35	0.42	0.88									
5	0.41	-0.26	0.35	0.28	0.90								
6	0.30	-0.37	0.39	0.46	0.30	0.89							
7	0.30	-0.46	0.31	0.32	0.39	0.21	0.91						
8	-0.38	0.40	-0.51	-0.48	-0.31	-0.44	-0.54	0.88					
9	0.33	-0.36	0.32	0.38	0.39	0.28	0.33	-0.48	0.76				
10	0.36	-0.47	0.39	0.42	0.48	0.29	0.41	-0.49	0.44	0.87			
11	0.38	-0.29	0.43	0.25	0.34	0.32	0.38	-0.39	0.35	0.41	0.86		
12	0.41	-0.45	0.35	0.39	0.50	0.35	0.37	-0.50	0.42	0.48	0.48	0.82	
13	0.37	-0.43	0.34	0.43	0.38	0.43	0.22	-0.41	0.39	0.26	0.37	0.35	0.87

1. Dividend Strategies; 2. Confidence and Risk-Taking; 3. Return and Profitability; 4. Social and Group Influences; 5. Financial Psychology and Risk; 6. Risk and Financial Volatility; 7. Ownership Structure and Dividend Payout; 8. Cognitive and Emotional Biases; 9. Corporate Financial Performance; 10. Financial Performance and Valuation; 11. Financial Management and Decision-Making; 12. Profit and Liquidity Ratios; 13. Financial Ratios and Quantitative Analyses.

The results obtained from the Fornell–Larcker matrix indicate that all latent variables examined had acceptable explained variance (AVE) and adequate internal correlation, demonstrating appropriate convergent validity and adequate discriminant validity among the variables. The values on the main diagonal of the matrix, which represent the square root of the AVE for each variable, were all above 0.70. This confirms that each variable explains a substantial portion of the variance related to its own indicators. In addition, the off-diagonal values, which indicate correlations among the latent variables, were lower than the corresponding square root of the AVE, indicating adequate discriminant validity.

To evaluate the goodness of fit of the conceptual model of the study, several indices were used to assess the fit of the model with the collected data. Table 5 presents the estimated values of the model fit indices along with the acceptable threshold values.

Table 5. Model Fit Indices

Model Fit Index	Symbol	Estimated Value	Acceptable Threshold
Standardized root mean square residual	SRMR	0.081	Less than 0.10
Goodness of fit	GOF	0.791	Greater than 0.36

The results show that the SRMR index was equal to 0.081, which is below the acceptable threshold of 0.10, indicating an appropriate fit of the model with the research data. In addition, the GOF index, with a value of 0.791, was above the acceptable threshold of 0.36, confirming the overall goodness of fit of the conceptual model. Therefore, it can be concluded that the proposed research model has an acceptable status in terms of fit indices, and the data are well aligned with the structure of the model.

Table 6. Results of the Structural Equations

Direct Effects	Beta	t	Significance Level	R ²	Adjusted R ²	f ²
Confidence and risk-taking → Dividend policy	-0.286	7.679	0.001	0.855	0.849	0.442
Social and group influences → Dividend policy	0.220	5.586	0.001			0.244
Financial psychology and risk → Dividend policy	0.306	7.318	0.001			0.528
Cognitive and emotional biases → Dividend policy	-0.299	7.420	0.001			0.400
Financial management and decision-making → Dividend policy	0.237	6.063	0.001			0.301

The coefficient of determination (R^2) shows that the five personality and behavioral characteristics of investors collectively explain 85% of the variance in dividend policy, indicating strong explanatory power. The effect size (f^2) also indicates the degree of influence of each variable on R^2 . Financial psychology and risk (0.528) had the greatest effect, followed by confidence and risk-taking (0.442) and cognitive and emotional biases (0.400). Social and group influences, with $f^2 = 0.244$, had the smallest effect.

Hypothesis 1: Confidence and risk-taking affect dividend policy.

The results obtained from the structural equations showed that confidence and risk-taking had a negative (-0.286) and significant effect on dividend policy. The significance level was less than 1%. The path coefficient indicates that as confidence and risk-taking increase, the tendency to adopt dividend policies decreases. This may be because individuals with higher confidence prefer to invest profits in risky projects rather than distribute them among shareholders.

Hypothesis 2: Social and group influences affect dividend policy.

The results obtained from the structural equations showed that social and group influences had a positive effect (0.220) on dividend policy. The significance level was less than 1%. This means that under social and group pressures, companies are more inclined to adopt dividend policies. This may result from social pressures to satisfy shareholders and maintain a positive public image.

Hypothesis 3: Financial psychology and risk affect dividend policy.

The results obtained from the structural equations showed that financial psychology and risk had a positive (0.306) and significant effect on dividend policy. The significance level was less than 1%. In other words, decision-makers in companies where financial-psychological factors are taken more strongly into account show a greater tendency toward dividend distribution. This behavior may reflect an effort to manage risk through profit distribution and to build trust among shareholders.

Hypothesis 4: Cognitive and emotional biases affect dividend policy.

The results obtained from the structural equations showed that cognitive and emotional biases had a negative (-0.299) and significant effect on dividend policy. The significance level was less than 1%. This means that an increase in these biases reduces the tendency toward dividend distribution. This may result from emotional decision-making and a tendency to retain profits in order to cope with unfavorable future conditions.

Hypothesis 5: Financial management and decision-making affect dividend strategies.

The results obtained from the structural equations showed that financial management and decision-making had a positive (0.237) and significant effect on dividend policy. The significance level was less than 1%. This value indicates that improvement in financial management and decision-making processes leads to an increased tendency toward dividend distribution. This effect is likely due to an emphasis on financial transparency and careful planning for the use of financial resources. In companies with strong financial management systems, dividend policies are part of an overall strategy to satisfy shareholders and create market stability.

4. Discussion and Conclusion

The present study aimed to explain corporate dividend policy based on investors' behavioral indicators using a structural equation modeling (PLS-SEM) approach. The findings demonstrated that investors' behavioral characteristics provide substantial explanatory power for dividend policy, with the proposed model explaining approximately 85% of the variance in the dependent variable. This high coefficient of determination indicates that behavioral variables collectively constitute a robust framework for understanding dividend policy beyond

conventional financial determinants. The results reinforce the central proposition of behavioral finance that corporate financial decisions cannot be fully interpreted through rational economic assumptions alone because investor psychology, perceptions, emotions, and social interactions significantly influence market expectations and managerial responses. These findings are consistent with the evolution of behavioral finance literature, which emphasizes that financial markets reflect not only economic fundamentals but also psychological and cognitive processes [1-3]. Likewise, studies conducted in the Iranian capital market have argued that behavioral dimensions provide a comprehensive explanation of investor decision-making and financial behavior beyond traditional valuation models [6, 7].

The first hypothesis demonstrated that confidence and risk-taking had a significant negative effect on dividend policy. This finding indicates that higher levels of investor confidence and willingness to assume risk reduce support for generous dividend distributions. From a behavioral finance perspective, overconfident investors generally believe that retained earnings can be invested more profitably in future projects, resulting in superior capital appreciation compared with immediate dividend payments. Such investors tend to underestimate uncertainty while overestimating managerial capability and future investment opportunities. Consequently, they are more willing to accept earnings retention as a mechanism for financing future growth rather than demanding current cash distributions. These findings align closely with theoretical and empirical studies demonstrating that overconfidence affects investment decisions by altering risk perception and expected returns [10]. Similarly, research has shown that managerial overconfidence mediates important corporate financial outcomes, including financial distress and strategic decision-making, suggesting that psychological confidence directly affects financial policy preferences [9]. Research examining the relationship between managerial personality traits and dividend policy has likewise reported that personality characteristics significantly influence payout decisions, supporting the present findings [17]. Furthermore, evidence from the Tehran Stock Exchange indicates that greater experience often increases overconfidence and risk-taking behavior, thereby affecting investment preferences and financial judgments [11]. Collectively, these studies support the conclusion that confidence and risk-taking encourage a stronger preference for earnings retention rather than dividend distribution.

The second hypothesis revealed that social and group influences exert a positive and significant effect on dividend policy. This finding suggests that firms become more inclined to distribute dividends when investor behavior is strongly shaped by social expectations, collective opinion, and market consensus. Dividend payments function as powerful public signals that reinforce investor confidence and preserve corporate reputation within financial communities. Managers operating in markets characterized by herd behavior and intensive information exchange may therefore use dividend policy strategically to satisfy shareholders and maintain favorable market perceptions. These findings correspond closely with behavioral studies indicating that investors frequently imitate the actions of others under conditions of uncertainty and that social interactions significantly influence financial decisions [16]. Likewise, previous investigations have demonstrated that herding behavior is strengthened by individual motivation, financial knowledge, and personality traits, thereby affecting investment decisions in the Tehran Stock Exchange [11]. International research has similarly concluded that investor attitudes and behavioral interactions substantially influence capital market outcomes, confirming that collective behavior should be incorporated into explanations of financial policy [4, 5]. More recent reviews of behavioral finance also emphasize that market sentiment and social influence have become increasingly important determinants of investor behavior, particularly in modern information-rich financial environments [1, 2].

The third hypothesis demonstrated that financial psychology and risk positively influence dividend policy and represented the strongest predictor among the behavioral variables examined. This finding indicates that investors and managers who place greater emphasis on psychological dimensions of financial risk are more likely to support dividend distributions as mechanisms for reducing uncertainty and enhancing confidence. Dividends provide tangible returns that reduce ambiguity regarding future cash flows and therefore serve as psychological reassurance during periods of market uncertainty. Investors who are particularly sensitive to risk may perceive stable dividends as evidence of financial strength, managerial competence, and long-term sustainability. Consequently, dividend payments reduce perceived uncertainty and improve investor trust. This interpretation is consistent with studies showing that emotional characteristics significantly influence market liquidity and investor reactions within the Iranian capital market [8]. Previous research has also demonstrated that behavioral factors substantially influence investors' financial decisions through psychological mechanisms associated with risk perception and financial expectations [7]. Broader behavioral finance literature similarly argues that financial psychology fundamentally shapes investment behavior because investors evaluate risk through subjective perceptions rather than objective probabilities [1, 3]. Moreover, evidence from Asian capital markets indicates that institutional mechanisms designed to protect investors strengthen dividend policies by reducing uncertainty and reinforcing shareholder confidence, further supporting the psychological interpretation of dividend payments [13].

The fourth hypothesis showed that cognitive and emotional biases negatively affect dividend policy. This result indicates that stronger behavioral biases reduce the likelihood of dividend distribution. Investors influenced by optimism bias, confirmation bias, anchoring, representativeness, or emotional reactions may develop unrealistic expectations regarding future corporate performance and therefore prefer earnings retention instead of immediate cash distributions. Emotional decision-making may also encourage precautionary behavior, whereby firms preserve internal resources because investors and managers overestimate future uncertainty. These findings strongly support contemporary behavioral finance theory, which argues that cognitive distortions systematically influence investment decisions and market behavior [3]. Research examining behavioral biases in portfolio optimization similarly concludes that investor biases significantly alter financial decision quality and investment allocation [15]. Studies conducted in the Tehran Stock Exchange have also identified cognitive and emotional factors as essential determinants of investor financial behavior and market participation [7]. Likewise, investigations of investor attitudes demonstrate that behavioral characteristics consistently influence financial choices across different market contexts [4, 5]. Therefore, the present findings provide additional empirical evidence that cognitive and emotional biases reduce support for dividend distributions by altering investors' subjective expectations regarding future returns.

The fifth hypothesis demonstrated that financial management and decision-making positively influence dividend policy. This finding suggests that effective managerial decision processes promote more stable and transparent dividend strategies. Organizations characterized by stronger financial management systems are more capable of balancing investment opportunities with shareholder expectations while maintaining financial stability. Sound decision-making also improves confidence among investors because dividend distributions become integrated into coherent long-term financial planning rather than reactive managerial decisions. These findings are consistent with studies indicating that managerial personality traits and leadership style influence financial reporting quality, internal controls, and strategic financial decisions [18]. Similarly, evidence concerning internal audit quality demonstrates that effective governance mechanisms improve organizational decision quality and operational effectiveness [19]. Research examining board characteristics has further shown that governance

structures significantly shape strategic corporate decisions, innovation, and long-term performance, indirectly supporting stronger financial management practices [20]. Additional evidence suggests that CEO characteristics contribute to corporate reputation, sustainable growth, and financial performance, all of which strengthen firms' capacity to implement consistent dividend policies [23].

An important implication of the present study concerns the integration of behavioral finance with corporate governance and financial management. Traditional dividend theories emphasize profitability, liquidity, taxation, agency costs, and investment opportunities, whereas the current findings demonstrate that these financial determinants should be interpreted alongside investors' psychological characteristics. Dividend policy appears to emerge from continuous interaction between managerial decision-making and investor behavior rather than from accounting variables alone. Managers anticipate investor reactions, while investors interpret dividend decisions through psychological, cognitive, and social frameworks. Consequently, dividend policy becomes both a financial allocation decision and a communication mechanism through which firms influence market expectations. This interpretation is compatible with studies demonstrating that behavioral finance increasingly complements traditional corporate finance by incorporating investor psychology into organizational decision-making [1-3].

The present findings also have broader implications for sustainable corporate management. Contemporary organizations increasingly operate within environments characterized by technological transformation, sustainability reporting, and heightened stakeholder expectations. Dividend policy therefore reflects not only financial capacity but also corporate transparency, governance quality, and strategic orientation. Firms capable of maintaining balanced dividend policies while investing in innovation and sustainable development may strengthen investor confidence without sacrificing long-term competitiveness. Previous research on high-technology firms demonstrates that dividend policy must increasingly be understood within the broader context of sustainability and technological change [14]. Similarly, bibliometric evidence concerning sustainability reporting highlights the growing importance of transparent financial communication for stakeholder confidence [22]. Behavioral finance models developed for emerging financial environments, including digital asset markets, further emphasize that investor psychology increasingly shapes valuation and financial decision-making across both conventional and innovative financial systems [15, 24].

Overall, the findings confirm that investor behavior constitutes an essential determinant of dividend policy. Confidence and risk-taking together with cognitive and emotional biases reduce managers' tendency toward dividend distribution, whereas social influence, financial psychology, and effective financial management increase support for dividend payments. These relationships collectively demonstrate that dividend policy should be interpreted as the outcome of interactions among investor psychology, managerial behavior, governance quality, and financial decision-making rather than as a purely accounting-based decision. Accordingly, integrating behavioral indicators into dividend policy models provides a more comprehensive explanation of payout decisions and contributes to the continuing development of behavioral corporate finance [1, 2, 7].

This study has several limitations that should be considered when interpreting the findings. First, the analysis was limited to companies listed on the Tehran Stock Exchange, which may reduce the generalizability of the results to other capital markets with different institutional and regulatory environments. Second, although the behavioral constructs were validated through the fuzzy Delphi method and structural equation modeling, behavioral variables inherently involve subjective perceptions that may change over time. Third, the cross-sectional nature of the behavioral data limits the ability to capture changes in investor psychology across different economic conditions and market cycles. Finally, while the proposed model explained a substantial proportion of the variance in dividend

policy, other organizational, macroeconomic, and governance variables not included in the model may also influence dividend decisions.

Future studies should examine the proposed behavioral model in different countries and financial markets to evaluate its cross-cultural validity and external generalizability. Researchers may also investigate moderating variables such as firm size, ownership concentration, industry characteristics, corporate governance quality, and macroeconomic uncertainty to determine whether these factors strengthen or weaken the observed relationships. Longitudinal research designs could provide valuable insights into how behavioral indicators evolve during different phases of economic expansion and recession. In addition, future investigations could integrate artificial intelligence, big data analytics, and real-time investor sentiment measures to improve the prediction of dividend policy and extend behavioral finance models to emerging digital financial markets.

Corporate managers should recognize that investor behavior significantly influences market reactions to dividend decisions and should therefore incorporate behavioral considerations into financial policy formulation. Financial managers are encouraged to communicate dividend decisions transparently and consistently to reduce uncertainty and strengthen shareholder confidence. Boards of directors should integrate behavioral risk assessment into strategic financial planning and consider investor sentiment alongside conventional financial indicators when determining payout policies. Investor education programs that improve financial literacy and reduce cognitive biases may also contribute to more stable market behavior and more efficient corporate financial decision-making. Finally, regulators and policymakers should continue strengthening disclosure quality and investor protection mechanisms to create an environment in which dividend policies reflect both sound financial management and informed investor expectations.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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