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# DIGIWORLD CORPORATION (HOSE: DGW)

DIGIWORLD

Date: 1st Dec 2023

**Stock Exchange**: HSX

**Current Price**: VND51,500

**Target Price**: VND54,300

**GICS Sector**: Consumer Discretionary

**Subsector**: Consumer Services

**Recommendation**: **HOLD** (5.5% Upside)

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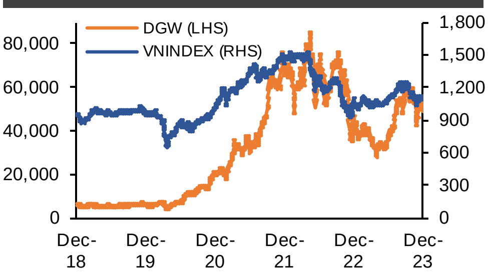
**Fig 1: DGW's Market Profile**

| | |
|---|---|
| Market Capitalization (VNDbn) | 8,604 |
| Share Outstanding (mn share) | 167.1 |
| Current Share Price (VND) | 51,500 |
| Foreign Room (%) | 49% |
| 52-Week High (VND) | 61,600 |
| 52-Week Low (VND) | 28,200 |
| Historical Beta | 1.4 |
| 52-Week Average Volume (share) | 1,700,742 |
| TTM P/E | 20.90 |
| Target Price (VND) | 54,300 |
| Upside | 5.5% |

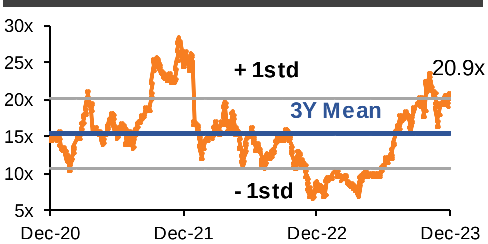
*Source: Bloomberg, Team's analysis*

**Fig 2: DGW's 5-Year Share Price Performance**



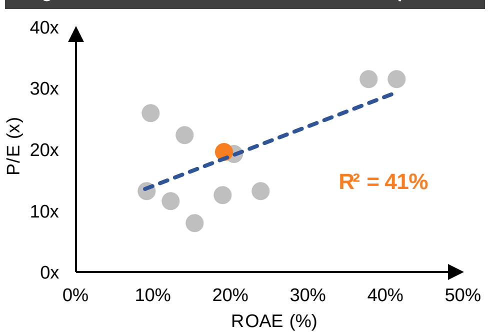

*Source: FiinPro-X, Team's compilation*

**Fig 3: DGW's 3-Year TTM P/E Performance**




*Source: Bloomberg, Team's calculations*

**Fig 4: DGW And Peers' P/E And ROE Comparison**




*Source: Bloomberg, Team's estimates*

## DGW: RESILIENT BUSINESS AWAITING DYNAMICS

### INVESTMENT SUMMARY

We initiate a **HOLD** recommendation with one-year target price (TP) of VND54,300, implying an upside of 5.5% as of 1st Dec 2023. Our TP is based on DCF and Relative P/E with a 75/25 mix.

**Leading nationwide ICT distributor with efficient operations and unrivaled services**

DGW stands as one of the top two ICT distributors in Vietnam, attributed to three key aspects: **1. One of the largest nationwide distribution network**, consisting of 6.000 points of sales (POS), 5 service centers, and 5 storage warehouses spanning from the North to the South. **2. Efficient operations powered by ERP-SAP:** ERP fastens delivery by 23%, cuts operational costs by 15-19%, and increases output by 16% compared to pre-ERP implementation period. **3. Non-replicable Market Expansion Services (MES):** DGW's superior business model features a high-value MES, a unique economic moat built on 20+ years of expertise, which distinguishes it from rivals who operate in traditional distribution model such as FPT Synnex, PSD and Viettel Distribution. Its solid track record includes the successful facilitation of Xiaomi entry into Vietnam, securing 13.5% market share in 2022 (top 3) within 4 years. The success establishes DGW as the go-to partner for global brands entering Vietnam, improving profit margins, while growing and diversifying sales by attracting new ICT and non-ICT brands.

**ICT sales growth moderates with squezeed profit margins**

During 2018-22, DGW ICT segment (96% total sales, 2022) grew at a robust pace of 40% CAGR, driven by the addition of major ICT brands (supply) and robust industry growth (demand). However, looking ahead, we expect a stabilization in ICT growth with a 2024/28 CAGR of 10% as growth potential from these two factors diminishes. On the brands side, the potential for sales expansion through newly-entered brand additions is constrained as all globally major ICT brands have entered Vietnam and the local market is competitive with high consolidation. Meanwhile, the prospect of attracting locally established smartphone players like Samsung, Oppo and Vivo is uncertain as they have little incentive to partner with DGW. For laptops, DGW has already covered 8 brands which account for 95% of laptop market share. On the users side, smartphones and laptops (S&L) industry growth will moderate to 2024/28 CAGR of 5.2% and 5.8% respectively due to high penetration rates. This will drive DGW smartphone sales to stabilize at 9.7%, surpassing industry growth, propelled by Apple's 16% annual growth as a key beneficiary of premiumization trend, but the price war among retailers is expected to shrink the profit margin of the products. Laptop sales will align industry-level growth at 6.2% annually. Despite office equipment segment witnessing a solid CAGR of 18%, fueled by the digitalization adoption trend, its 15% sales contribution (versus smartphone and laptop of 81%, 2022) is insufficient to propel total ICT sales to grow beyond 10% annually.

**The prospect of winning non-ICT markets remains largely uncertain**

We assessed DGW's diversification into non-ICT segments based on three primary elements: (1) distribution network, (2) company strategy, and (3) a solid brand/product portfolio. In Home Appliance (HA) segment, featuring major brand/product like Whirlpool and Xiaomi, the prospect of winning the local market is ambiguous due to fierce market competition. Other brands in DGW's portfolio are relatively small. In Consumer-Healthcare segment, concerns arise about a modest distribution network, and an unpopular brand portfolio. However, we expect non-ICT revenue can still grow from the current low base of existing brands, and from attracting new, niche non-ICT brand/product thanks to a solid track record in ICT. To remain conservative, we project non-ICT sales contribution to increase by 1% annually, equivalent to 2024/28 CAGR of 23%. Overall, DGW's total sales will grow at 11% annually, with EPS outpacing at 18% thanks to more sales contribution from higher-margin non-ICT segments.

**Our valuation implies growth potential has been priced in**

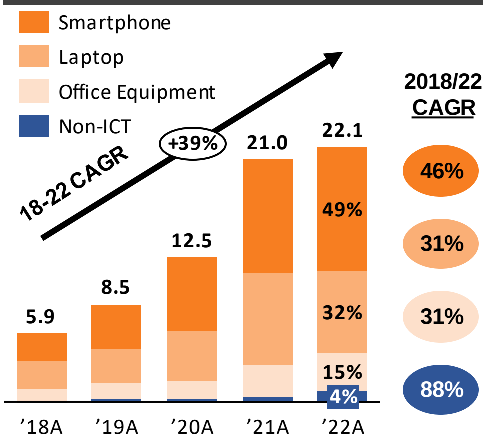
We employed the FCFF and relative P/E valuation with 75/25 weights to arrive at a TP of VND 54,300. Our TP equates an 2024F P/E of 17.9x, 16% and 23% higher than its 3Y average TTM P/E of 15.4x and peers' average of 14.5x respectively, which we believe is well-justified given (1) the prevailing market up trend, (2) DGW's superior financial performance versus peers, and (3) improved risk profile thanks to better sales diversification. Our conclusion is reinforced by a PEG of 1.07x (calculated as LTM PE divided by EPS 2024-28F CAGR), indicating growth potential has been priced in. Moreover, we believe our HOLD recommendation is suitable with DGW's low growth in ICT segment and high uncertainty in non-ICT penetration.

**Downside risks accompanied by upside gains**

The primary downside risk is the loss of market share when Xiaomi and Apple, DGW's key brand partners, sign contract with other distributors, factored in our sensitivity analysis, bear case, and Monte Carlo simulations. On the contrary, attracting more non-ICT brands than expected stands as a key upside potential, detailed in our bull case and Monte Carlo analysis.

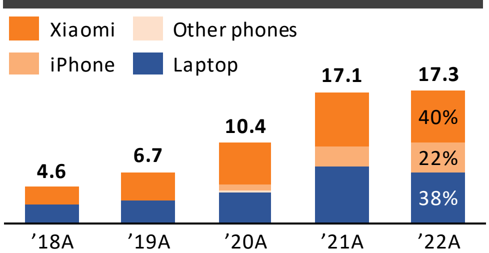
| Key Financials | 2018A | 2019A | 2020A | 2021A | 2022A | 2023F | 2024F | 2025F | 2026F | 2027F | 2028F | 2024/28 CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Net sales (VNDbn) | 5,944 | 8,492 | 12,535 | 20,971 | 22,085 | 20,111 | 22,910 | 25,907 | 28,731 | 32,837 | 35,255 | 11.4% |
| EBIT margin (%) | 2.4% | 2.3% | 2.2% | 3.3% | 3.7% | 2.3% | 2.6% | 2.7% | 2.9% | 3.0% | 3.1% | |
| Net margin (%) | 1.9% | 1.9% | 2.1% | 3.1% | 3.1% | 1.9% | 2.3% | 2.3% | 2.5% | 2.6% | 2.7% | |
| EPS (VND) | 656 | 977 | 1,600 | 3,920 | 4,092 | 2,385 | 3,023 | 3,466 | 4,043 | 4,862 | 5,800 | 17.7% |
| DPS (VND) | 194 | 125 | 257 | 264 | 542 | 982 | 649 | 919 | 1,165 | 1,617 | 1,945 | 31.6% |
| ROAE (%) | 15.0% | 19.3% | 25.7% | 44.6% | 32.5% | 15.2% | 18.1% | 19.1% | 20.1% | 20.4% | 21.0% | |

**Fig 6: Net Revenue Breakdown (VNDtn)**



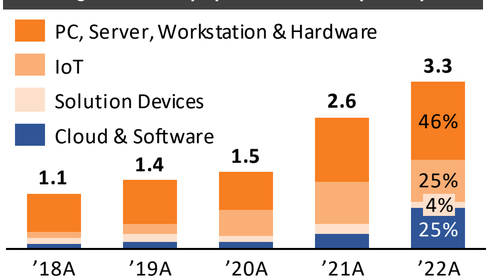

Source: DGW

**Fig 7: Smartphone & Laptop Revenue (VNDtn)**



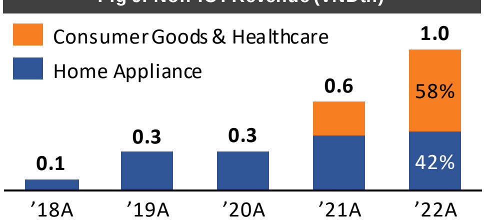

Source: DGW, Team's estimates (**Appendix 1B**)

**Fig 8: Office Equipment Revenue (VNDtn)**



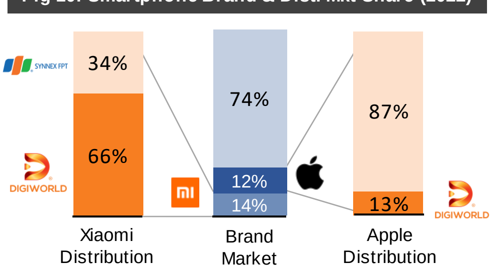

Source: DGW

**Fig 9: Non-ICT Revenue (VNDtn)**



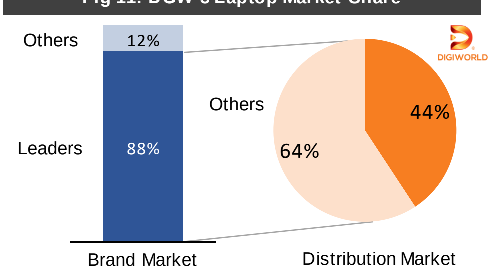

Source: DGW

**Fig 10: Smartphone Brand & Dist. Mkt Share (2022)**




Source: DGW, Counterpoint, Team's compilation

**Fig 11: DGW's Laptop Market Share**




Source: DGW, GfK, Team's compilation

## BUSINESS DESCRIPTION

### Business Overview

Established in 1997 in Vietnam, Digiworld Corporation (HOSE: DGW) is one of the two biggest Information & Communication Technology (ICT) distributors in Vietnam.

DGW's core portfolio is ICT products, including smartphones, laptops, tablets, and office equipment. Recently, DGW is diversifying its revenue into non-ICT segments, including home appliances, consumer goods, and healthcare **(Fig 6)**.

### DGW operates under the Market Expansion Services (MES) business model

DGW pursues a **distribution business model**, functioning as an intermediary between manufacturers (brands) and retailers (stores). DGW provides (1) **conventional distribution services** of sales, logistics and distribution, and (2) **differentiated market expansion services (MES)** including market research, marketing and aftersales services, which has enabled DGW to attract and serve over 30 world-class ICT brands and 13 non-ICT brands. Some brands use the full range of services, while others use only 2-3 services. For exclusive MES contracts which typically last 3-5 years and used by new brands with no previous exposure to the local market, DGW provides a full suite of MES (Appendix 3). MES is attractive for brands since they can grow business in the most resource-efficient manner by utilizing DGW's existing resources, including solid local know-how, extensive distribution network, and well-established operation.

### MES enables DGW to enjoy higher margins while growing and diversifying revenue

DGW typically charges brands little for using its value-added MES, as these only account for a minor portion of revenue, while **traditional distribution is the major revenue contributor**, as per management. Instead, in return for its services, brands would pay back DGW via supplier rebates, basically a financial incentive or discounts for their products, allowing DGW to **enjoy higher margins**. Additionally, MES also helps DGW **grow revenue by attracting new brands**, both in ICT and non-ICT segments, thus also **reduces revenue concentration risk** on a few key segments or key brands (details in Competitive Positioning).


### Business Segments

**ICT: Smartphone** *(49% sales)*: In 2018-22, smartphones were the fastest-growing segment with a CAGR of 46% **(Fig 6)**. For brand portfolio, Apple (iPhone) and Xiaomi are the two main revenue contributors, while other lesser-known brands like Huawei, TCL and ZTE only account for less than 1% of sales **(Fig 7)**. In 2022, Xiaomi is the 3rd largest brand with 14% volume market share while Apple ranked 4th with 12%. Regarding the distribution market, after its exclusive MES contract with Xiaomi expired in Jan 2022, DGW market share declined sharply to 80% in late-2022 because Xiaomi added FPT Synnex as its new distributor in Vietnam, mainly to reduce concentration risk. For Apple, DGW held 12% iPhone market share in 2022, while the other 88% was shared among the other 3 authorized distributors **(Fig 10)**. DGW's customers include mom-and-pop ICT stores and nationwide ICT chains such as FPT Shop, Mobile World, and Hoang Ha Mobile who are equally significant sales contributors.

**ICT: Laptop (Laptop & Tablet)** *(32%)*: As a leading laptop wholesaler with 40% distribution market share, DGW distributes products from 8 brands (HP, Dell, Asus, Toshiba, Acer, Lenovo, Apple, Huawei) to telecom resellers, electronics retailers, and computer stores **(Fig 6)**. These 8 brands made up 95% laptop market share **(Fig 11).** Versus laptop, tablet sales is minor with market size 5x smaller, slower 2024/28 industry CAGR at 4.7% (versus 6.1%), and DGW held 12% distribution market share. Due to high similarity in characteristics and trends between laptop and tablet, the tablet segment is incorporated into the laptop to simplify our analysis.

**ICT: Office Equipment (OE)** *(15%)*: DGW's distributes corporate equipment (PC, server, workstation & hardware, cloud & software) and consumer equipment (Internet of Things (IoTs), solution devices) **(Fig 8)**. The first is sold to B2B technology companies, while the second is sold to ICT retailer chains. In 2022, DGW held 10% distribution market share.

**ICT: Industrial Equipment (IE)** *(Started recording sales in 2023, DGW classifies in OE-ICT sales)*: DGW expanded into the IE industry mainly to boost OE sales by cross-selling with B2B customer base of Achison which it acquired 60% stake in 2022 (75% ownership as of 2023).

**Non-ICT: Home Appliance (HA)** *(2%)*: To leverage existing distribution network with consumer electronics retail chains, DGW diversifies into household appliances industry by providing MES for newly-entered foreign brands. Its portfolio covers large appliances with Whirpool and Xiaomi as key brands, and small appliances from Joyoung and Westinghouse (Appendix 4).

**Non-ICT: Consumers-Healthcare (CH)** *(2%)*: Through M&A with existing wholesale companies, including C.L Ltd (90% ownership) and Dai Tin Pharma (36% ownership) to distributes consumer & healthcare products of globally famous yet locally unpopular brands/sub-brand from Lion FMCG, AB-InBev Beer, Lotte Chilsung, Nestle, etc. (Appendix 4).

As for GPM, a rule of thumb is that products with easier sales have lower margins. According to DGW, for GPM, **Apple < Xiaomi < Laptop < OE < HA < IE < CH (Appendix 23).**

## COMPANY STRATEGY

### Horizontal Expansion (Short to Long term)

**Expanding brand/product portfolio**: To grow and diversify sales, DGW signs contracts with (1) new brands or (2) existing brands' new products. For #1, DGW partners with globally-leading yet locally-unpopular brands (Appendix 4). For #2, DGW distributes more products from existing partners like Xiaomi smarthome in 2020, refrigerator and air conditioner in 2024.

**Entering niche segments in non-ICT industries via M&A**: To successfully enter new non-ICT segments most efficiently, DGW opts to M&A with existing distribution companies in the targeted industries (Appendix 2). As a new entrant, DGW plans to penetrate niche segments first to avoid direct competition with long-established players, and then expand to the mass markets once the niche segments has established.

### Vertical Expansion (Long term)

**Expansion into retail:** In the long term, DGW aims to set foot in retailing to enjoy better margins. We believe this is a long-term ambition as its current experience with retail includes operating on-and-offline brand shops under the direct-to-consumer (D2C) model (i.e. selling directly to consumers). These brand shops are currently used for differentiating DGW's services (as part of its MES) and not for profit motive as sales contribution is minor.

**Manufacturing OEM or in-house products**: DGW aspires to have its in-house brands, either via collaborating with OEM partners or M&A with manufacturing firms for in-house production, to leverage on its extensive distribution network and enhance profit margins.

Fig 12: ESG Summary

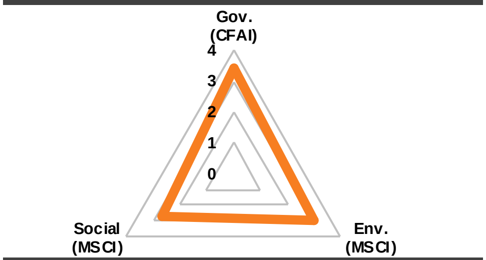
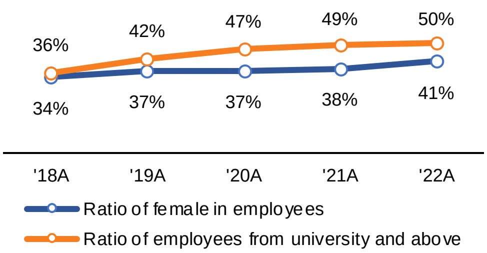
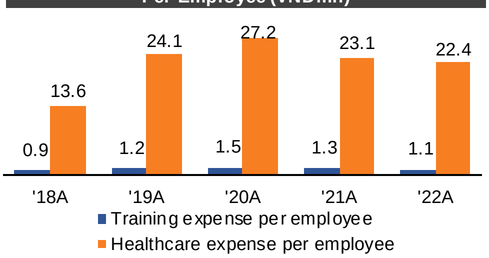



Fig 13: Female Gender Ratio And Employees From University And Above Ratio (%)



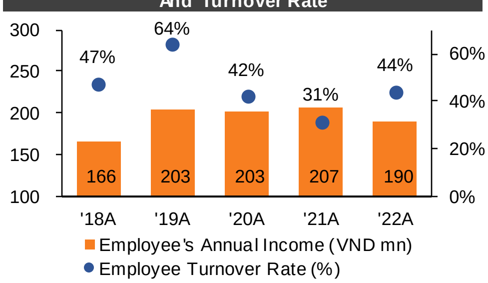

Source: DGW, Team's compilation

Fig 14: Training And Healthcare Costs Per Employee (VNDmn)



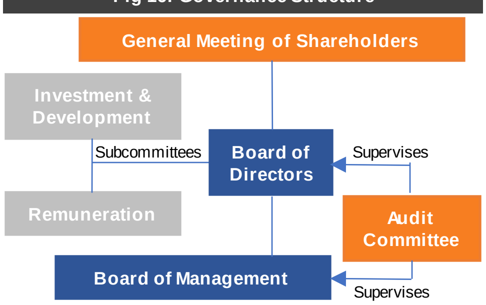

Source: DGW, Team's compilation

Fig 15: Employee's Annual Income And Turnover Rate



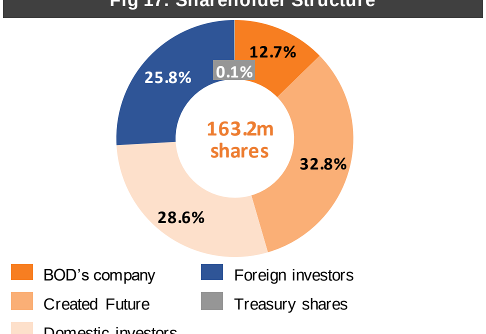

Source: DGW, Team's compilation

Fig 16: Governance Structure




Source: DGW, Team's compilation

Fig 17: Shareholder Structure




Source: DGW, Team's compilation

## ENVIRONMENTAL, SOCIAL & GOVERNANCE

DGW is one of the high achievers in ESG performance among mid-cap companies (as per VCCI). **Fig 12 and** Appendix 6 summarize our Environmental, Social rankings based on MSCI ESG Framework and Governance ranking based on CFA Corporate Governance Framework.

### ENVIRONMENTAL

#### Environmental sustainability supported by business operations

As a trading company, DGW's business activities do not have significant impact on the environment. However, we appreciate DGW's responsibilities to comply with environmental protection standards. In 2022, total energy consumption grew by 0% yoy while revenue reached 5% yoy in 2022. Regarding electronic waste, DGW conducts recycling activities at DGCare after-sales service centers nationwide.

### SOCIAL

#### Bolstering fairness and good quality workforce for future development

DGW is striving to fulfill its social responsibilities by its commitment to guarantee fairness among employees. Across 2018-22, DGW has seen an 8% increase in women across its workforce, now 41% of total employees, ensuring gender diversification **(Fig 13).** Regarding human capital development, DGW aims to focus on investing in internal training, with a nearly 3x increase in training sessions from 56 to 146 during 2018-22. In 2023, DGW organized several courses e.g "REIMAGINE the way to work" by Microsoft Vietnam, ChatGPT training, indicating its efforts to integrate regularly updating knowledge into its training programs. In addition, DGW's effort to attract young talents - the driving force behind the company's future development - can be seen through its management trainee and internship program. By evidenced, DGW has witnessed a significant rising in the number of employees from university and above, contributing to 50% of total employees in 2022 compared to 36% in 2018 **(Fig 13).**

#### Employees' benefits are showing signs of weakness

We see DGW's weak performance in recent year regarding employees' benefits. In detail, total training costs and total health insurance costs per employee have been on the decline from 2020-22 **(Fig 14).** Another concern falls up to the average annual income per employee of 190 VNDmn in 2022, which was the lowest during 2020-22 **(Fig 15).** As a result, DGW's employee turnover rate of 44% in 2022 was higher than the 42%/31% in 2020/2021, respectively **(Fig 15)**. Regarding labor standards, there is limited information about safety training for employees in the working environment. Therefore, despite continuously issuing ESOP shares annually since listing in 2015, we suggest DGW's responsibilities as an employer should be further bolstered to enhance employees' benefit and retain workers with the company.

#### Social project to foster community development

To enhance community and society development, DGW continuously promotes practical and meaningful programs. For the fourth consecutive season, DGW organized the "Green Incubation Marathon" in 2022 and contributed 1 VNDmn per 1 participant to its scholarship fund. Thus, 200 programming scholarships with a total value of more than 10 VNDbn were sponsored for young people. This is a large-scale project with 1.500+ offline runners and 934 online runners nationwide in 2022, we believe this project will continue to bring good values to the community and society in the future.

### GOVERNANCE

DGW surpasses domestic competitors in terms of management's commitment. While (1) PET is a joint venture of PVN, (2) Synnex FPT is an associate company of FPT Corporation, and (3) Viettel Distribution is a subsidiary of Viettel, Chairman Doan Hong Viet has led DGW since its inception in 1997 and is currently holding 32.8% stake via Created Future company **(Fig 16)**, implying strong alignment of interests with shareholders. Hence, we believe DGW has a solid governance structure, which is further demonstrated through our assessment in four key areas, including the Board of Directors (BoD) with two subcommittees supporting for DGW's operation, Board of Management, Audit Committee, and Shareholders as analyzed below **(Fig 16)**.

#### Board of Directors - Leading team featuring high expertise and strong commitment

DGW's Board of Directors shows high diversity in terms of (1) gender with 40% female and (2) backgrounds with five members possessing deep experience and knowledge from relevant fields (Appendix 5). Notably, three members (including the Chairman) have worked for DGW more than 20 years since its foundation, ensuring both operational commitment and stability for the future. The other two members have years of experience in consumers marketing and healthcare business, which we believe is one of the driving forces behind DGW's expansion into the new Consumers-Healthcare sectors**.**

#### Board of Management - In-depth experiences with the company's operations.

The Board of Management consists of three members, all having at least 20 years of working experience with DGW. The separation of Chair and CEO roles, with Mrs. Dang Kien Phuong as the CEO and Mr. Doan Hong Viet as the Chair, contributes to the unbiased decision-making process and mitigates the risk of excessive concentration of power.

#### Audit Committee - Encouraging fairness-based policies

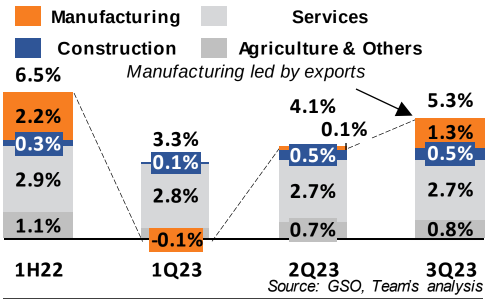
The Audit Committee, comprising two independent members with background in accounting, law and economic fields (Appendix 5)**,** is responsible to fulfill their supervisory duties fairly, independently and objectively.

#### Shareholder structure - Demonstrating a strong alignment of interests with shareholders

DGW's shareholder rights is ensured by its one-share one-vote standard, indicating the priority for the interests of its shareholders. This is further supported by the high level of inside ownership. Three companies of the BOD make up 45.5% of the outstanding shares, **(Fig 17,** Appendix 5**)**, which we believe creates strong incentive to act in the best interest of shareholders. We acknowledge high insider concentration is a double-edged sword as it limits outside investors' control, giving the BOD too much power, however, the pros outweigh the cons, given their high expertise and strong commitment.

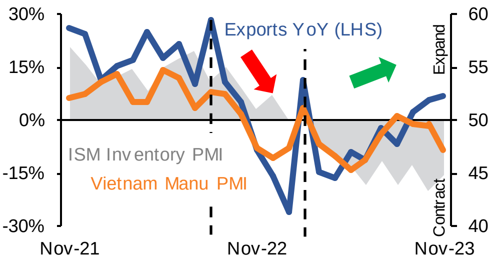
Conclusion: We assigned an overall score of **3.1/4.0**, indicating a **"Good"** ESG standing. We believe that DGW will continue to drive strong ESG performance and attract investors who consider ESG to be a crucial area of focus for business in the future.

Fig 18: Real GDP Growth By Sector



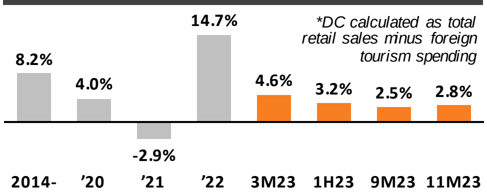

Source: GSO, Team's analysis

Fig 19: VN Manufacturing PMI, ISM US Inventory PMI and VN Export YoY




Source: GSO, S&P Global, YCharts, Team's analysis

Fig 20: Real Domestic Consumption YoY (DC)*



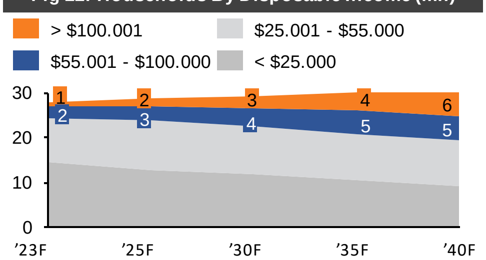

Source: GSO, VNAT, Team's calculation

Fig 21: 2023/24F Vietnam GDP Forecast

| | 4Q23F | 2023F | 2024F |
|---|---|---|---|
| Gov's target | >7.0% | >5.0% | 6-6.5% |
| World Bank | 5.9% | 4.7% | 5.5% |
| IMF | 5.9% | 4.7% | 5.8% |
| VinaCapital | 5.9% | 4.7% | 6.5% |
| HSBC | 7.0% | 5.0% | 6.3% |

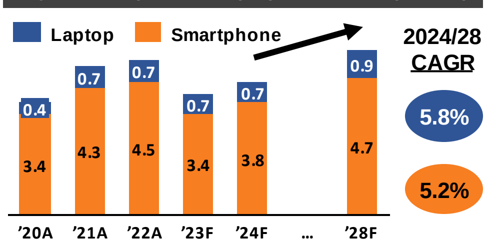
Source: Team's compilation

Fig 22: Households By Disposable Income (mn)



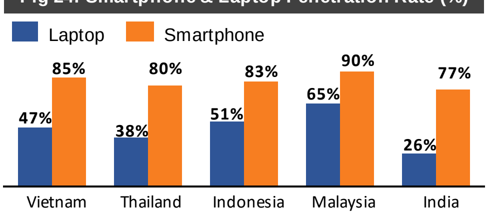

Source: Euromonitor

Fig 23: Smartphone & Laptop Market Size (USDbn)




Source: Euromonitor, Team's estimate

Fig 24: Smartphone & Laptop Penetration Rate (%)




Source: Euromonitor, Team' compilation

## MACROECONOMIC ANALYSIS

### Weak 1H23, marked by poor exports/manufacturing and subdued domestic consumption

1H23 GDP growth plunged to 3.7% yoy, marked by a flat yoy growth of manufacturing, with PMI staying in contraction zone, driven by -12% yoy exports decline **(Fig 18 & 19)**. The exports plunge was because the US, a key exports market for Vietnam (US exports accounted for c.20% GDP over last 3 years) suspended new orders to de-stock retail inventory which they "over-ordered" during 2021-22 in anticipation of a pent-up demand boom which never happened. Manufacturing layoffs ensued, with employment PMI below 50 throughout 1H23. Meanwhile, Government's efforts to boost growth through public investment, which surged 21% yoy, had limited impact as reflected by a low 0.3% contribution of construction activities to 1H23 growth **(Fig 18).** These factors, coupled with weak consumer sentiment caused by distressed property sector, weighed on domestic consumption. 1H23 domestic retail spending slowed to c.3.2% real growth, well below the typical pre-COVID 8% growth, per our estimates **(Fig 20).**

### In the short-term, the economy is poised for a moderate rebound with mixed outlook

In 3Q23, GDP rebounded by 5.3% yoy, mainly led by a 5.6% yoy recovery in manufacturing sector, driven by exports rebound whose growth returned to slightly positive growth in September/October, reaching +2%/6% yoy **(Fig 18 & 19).** The refill of US inventory – which is depleting at fastest rate in 9 years – was a key factor **(Fig 19, Appendix 7).** As a result, employment improved, with employment PMI rebounding from 45 in June to 48.8 in November. This momentum is expected to drive a 4Q23 GDP growth of 5.9-7.0%, contributing to 2023F growth of 4.7-5.0% as per various institutions **(Fig 21).**

In 2024, the economy is set to continue its resurgence, with 2024 consensus growth forecasted to be higher than 2023's low base, primarily led by an exports-driven manufacturing rebound thanks to the re-stock of US inventory. However, projections for 2024F growth vary, with the WB and IMF forecasting below 6%, while others anticipate 6%+, reflecting uncertainty around weakening external demand and global geopolitical tensions **(Fig 21).**

Our view aligns with the bearish camp: continued export-led GDP rebound yet at modest pace of less than 6%, due to concerns over geopolitical tension and further sign of US demand weakening which should slow down the pace of re-ordering from retailers. US November ISM Inventory PMI continued to stay in contractionary zone at 44.8, implying continued inventory shrinkage, despite a seemingly resilient economy with above-consensus 3Q23 GDP growth of 5.2% - an upward revision from an initial 4.9% figure. Meanwhile, US consumer savings has nearly exhausted, credit card delinquency is on the rise and Michigan consumer sentiment index fell to 6-month low in November at 60.4 – a steep decline from July's 71.5 (Appendix 7). These continued to weigh on Vietnam's manufacturing sector, with PMI remaining in contraction zone at 47.3 in November, lower than October's 49.6. Domestic spending was still weak. Nevertheless, it has slightly improved, with 11M23 real consumption growing at 2.8% yoy, higher than 9M23 period of 2.5% yoy **(Fig 20).**

### In the long-term, rising income and urbanization will drive consumption growth

Euromonitor projects Vietnam's income to grow at a 9.8% 2023/40 CAGR, outpacing the APAC region's 6.8% CAGR. It will double the number of middle and affluent class (MAC) households from c.5mn (2025) to c.11mn (2040), growing at a 5.6% annually **(Fig 22**). We believe MAC growth will be further fueled by the recent US-Vietnam CSP upgrade, which is expected to attract substantial high-tech FDI over the medium-and-long term, enabling the manufacturing sector to move up the value chain and boost income. The growth of the MAC, alongside a rising urbanization rate (c.40% in 2022, below two-thirds in China), is expected to propel the growth of consumer goods, especially discretionary ones such as ICT devices. The trend bodes well for ICT distributors like DGW, especially with high-end Apple in its portfolio.

## INDUSTRY ANALYSIS

### ICT INDUSTRY

### Smartphone & Laptop (S&L): Short-term rebound backed by recovery and replacement

Due to COVID-19, laptop sales grew rapidly at 73% yoy during 2H20-1H21, while smartphone sales increased 74% yoy during 2H21-1H22. Because the average replacement cycle of smartphone and laptop are 3 and 4 years, respectively, we expect a S&L rebound in 2024 from 2023's low base of -24.0% and -10.9% yoy. However, given our view for a moderate short-term GDP recovery, we only expect the smartphone market to rebound 11.1% yoy to 3.8 USDbn, equivalent to c.90% of COVID average), and laptop market to recover 10.6% yoy to 0.7 USDbn, equating 100% of COVID average **(Fig 23).** Therefore, the recovery of smartphone and laptop demand in 2024 is believed to contribute to the sales growth of leading ICT wholesalers, with their distribution network and market share. On the other hand, although 2G is about to be terminated in 2H24 for the development of 4G/5G services, sales demand for the switch to low-end smartphone is unattractive at 0.17 USDbn because (1) features phones are usually used as a second phone, (2) their prices are low, c. 1.5 VNDmn per device, and (3) several brands such as Nokia have already introduced 4G-supported feature phones (Appendix 12).

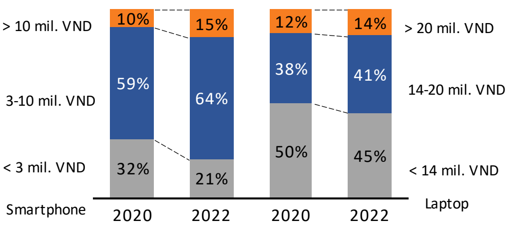
### Smartphone & Laptop: A saturated market riding on long-term premiumization tailwind

With a high smartphone penetration rate in Vietnam **(Fig 24)**, industry revenue is estimated to grow at a 2024/28 CAGR of 5.2%, driven by trade-up trend to upper-end segments **(Fig 23 & 25)**, thanks to rising MAC **(Fig 22).** High-end brands like Apple are well-positioned to capture the market share in the long-run, given (1) Government's crackdown on hand-carried iPhones (unauthorized iPhone market share from 40% to 20% in 2020-22), and (2) Apple focusing more on serving the Vietnam market through marketing campaign and online shop. As a result, four Apple authorized distributors in Vietnam (DGW, PSD, Viettel Distribution, and FPT Synnex) are expected to capitalize on the premiumizing demand of smartphone. Similarly, the laptop market is matured with high penetration rate **(Fig 24),** expected to grow at a stable 2024/28 CAGR of 5.8% on the back of premiumization trend **(Fig 23 & 25).** As a consequence, leading ICT wholesalers with partnership with high-end ICT brands like DGW stand as key beneficiaries of this long-term tailwind (Appendix 14).

### Smartphone & Laptop: Wholesalers margins pressured by retailers' price war

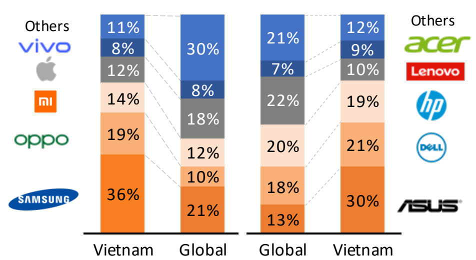
Since ICT retailing industry has matured, characterized by high player consolidation and low service differentiation, competitors are pushed towards price competition to gain market share. MWG (50%+ smartphone retailing market share) has made its move in 2023 to gain shares amid weak demand, and is expected to persist price war according to CEO Hieu Em. As a result, its EBIT margin plunged to 2.1% in 9M23 (vs 7.5% in 9M22), while FPT Shop margin turned negative -2.7% (vs 2.0% in 9M22). Given a satured ICT market, we expect the price competition among retailers will gradually squeeze the operating margins of ICT wholesalers' in the medium term, as they have to attempt make trade discounts or run incentive programs to price-support their customers, such as distribution agents and retail chains.

**Fig 25: Smartphone & Laptop Market Share By Price**



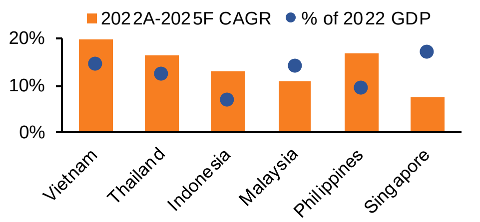

*Source: DGW, GFK, Team's compilation*

**Fig 26: Smartphone & Laptop Market Share By Brand**



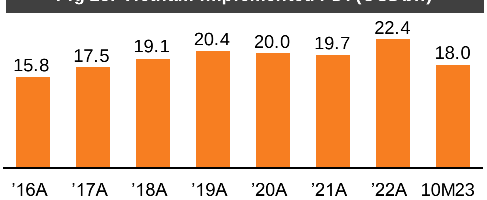

*Source: Counterpoint, IDC, Team's compilation*

**Fig 27: Digital Economy Gross Merchandise Value**



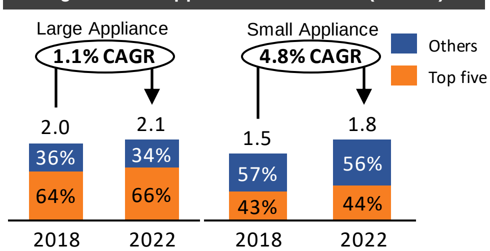

*Source: Bain & Company, Google, Temasek, Team's compilation*

**Fig 28: Vietnam Implemented FDI (USDbn)**



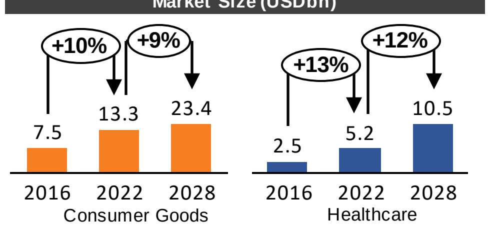

*Source: Ministry of Planning & Investment, Team's compilation*

**Fig 29: Home Appliance Market Size (USDbn)**



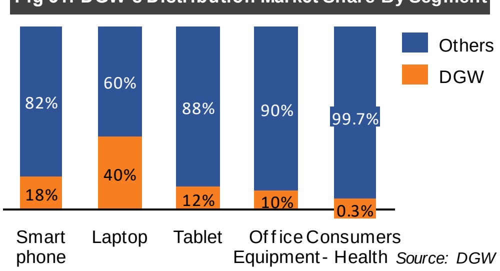

*Source: Euromonitor, Team's estimate*

**Fig 30: Consumer Goods & Healthcare MES Market Size (USDbn)**




*Source: Roland Berger, NIQ, BMI, Team's estimate*

**Fig 31: DGW's Distribution Market Share By Segment**




*Source: DGW*

**Smartphone & Laptop: Consolidated market with few potential market entrants**

In Vietnam, renowned smartphone and laptop brands have solidified their presence, capturing 89%, and 88% market share, respectively **(Fig 26)**. Given all popular brands have entered the market, and the lack of remaining notable new entrants, we believe another success ICT market entry story barely recurs in the foreseeable future. Therefore, a MES ICT provider like DGW is unlikely to witness any significant revenue growth from partnering with new smartphone and laptop brands as the case study of Xiaomi and Acer in the past (Appendix 10). In addition, the market share of iPhone is expected to stabilize among four Apple Authorized Distributors (DGW, PSD, FPT Synnex, Viettel Distribution), owing to theirs similarity in distribution network and service offerings (Appendix 14). On the other hand, with the low switching cost, other leading brands might continue to partner with another wholesalers, apart from current distributiors, such as the cooperation of Xiaomi and FPT Synnex. However, the upcoming ICT distribution partnership is uncertain due to (1) the cost resolving conflict of interests with existing wholesaler, and (2) the dependence on the brand's intention and strategy (Appendix 13).

**Office Equipment: Potential room on the growth of digital adoption**

Vietnam is estimated to have the fastest-growing digital economy in ASEAN, with Gross Merchant Value 2022/25 CAGR of 19% **(Fig 27)** driving the demand for the digital products. For consumer equipment, given (1) rising income levels of Vietnamese household, (2) the increasing trends of smart home installation and wearable devices usage, and (3) the low penetration rate of IoT devices (Appendix 16), the market size from IoT devices rise at 2023/27 CAGR of 23%. On the other hand, for corporate equipment, with the FDI inflows of corporations and factories into Vietnam **(Fig 28)**, and the establishment of data centers for data and cloud, the distribution market size of corporate digital equipment would grow at a 2023/28 CAGR of 16%. Nevertheless, the distribution market is highly fragmented with the top three players occupying only 35% of the total market (Appendix 15). It is because (1) technology companies depend on a variety of suppliers to purchase products customized for the clients' order, and (2) only a few wholesalers can deliver both software and hardware. As a result, there is further room for market consolidation in office equipment distribution by prominent players with strong product portfolio and large distribution network such as DGW, FPT Synnex, etc..

**Industrial Equipment: High-growth yet modest-sized market**

The Vietnamese industrial equipment market size is relatively small, at c.0.5 USDbn, benchmarked with ASEAN peers countries. However, the market shows a promising growth with a 2023/28 CAGR of 10-11%, driven by continued high-tech FDI inflows into Vietnam thanks to "China+1" movement, high political stability, and low labor cost that is growing in quality **(Fig 28)**. Notably, the market is highly fragmented due to its B2B relationship-based nature, which presents growth potential for Achison JSC, a player with solid track record built over 20 years, to expand its market share beyond the current 5-6% level.

**NON-ICT INDUSTRY**

**Home Appliance: Competitive playground dominated by well-established brands**

The home appliance industry in Vietnam is largely matured, featuring low growth and high consolidation. For the large home appliance segment, industry only grew at 1.1% 2018/22 CAGR, with 66% market share dominated by top 5 brands. These 5 include Samsung, Haier, LG, Pana, Toshiba, mostly Korean and Japanese brands. The same is true for small appliance segment which has smaller market size, with 4.8% 2018/22 CAGR and 44% market share held by top 5 brands, mostly local players **(Fig 29)**. This presents significant barrier to entry for new, lesser-known brands that DGW distributes such as Whirlpool and Westinghouse.

**Consumer Goods: A tempting, yet fiercely competitive market**

The market of wholesale for consumer goods is highly attractive at USD 13.3bn in 2022, expected to grow to USD 23.4bn in 2028 with a CAGR of 9% **(Fig 30)**. However, the market is highly occupied with the top 3, including DKSH, MESA and Phu Thai, holding 50%+ market share in 2022 thanks to specialized expertise, customized services, and large-scale distribution network (Appendix 18). As for the retail market, the pie is also attractive, yet the market is also highly combative, dominated by leading brands from P&G and Unilever (staples), CocaCola and Pepsico (beverage) and Habeco, Heineken and Sabeco (beer). Together, these mean DGW, a new entrant partnering with unpopular/niche brands, would face significant challenges with regards to distribution system and brand portfolio.

**Healthcare: An appealing outlook with high barriers to entry**

Given the rise of (1) health awareness, (2) healthcare spending and (3) aging population, the MES industry for healthcare is attractive with 12.6% 2022/28 CAGR **(Fig 30)**. However, the pharmaceutical industry is a highly complex field with numerous regulations, networks, and relationship factors, creating significant barriers for market entry. On the other hand, the market is competitive, with top three distributors, Zuellig Pharma, DKSH, and Mega Product holding collectively 70% market share (Appendix 19). Hence, DGW will likely confront numerous market entry challenges due to its strategy to focus on serving small-and-medium-sized local pharmaceutical manufacturers whose products are usually unpopular.

## COMPETITIVE POSITIONING

DGW's past success was attributable four main drivers: (1) extensive network, (2) efficient operation, (3) appropriate strategy and (4) strong track record and brand portfolio. (4) is essential to ensure distributors can sell inventories, as retailers are hesitant to stock unpopular brands's products due to low market demand. These four enabled the successful entrance of Xiaomi phone, capturing 13.5% market share (top 3, 2022) after 5 years (Appendix 10).

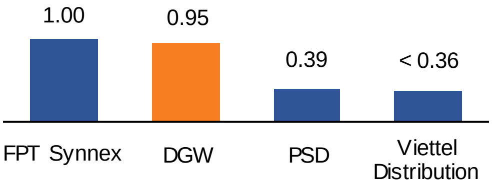
**Leading ICT distributor with nationwide distribution network and efficient operations**

DGW is one of the two largest ICT distributors in Vietnam, accounting for 18% and 40% of smartphone and laptop distribution market share in 2022 **(Fig 31)**. DGW owns one of the largest nationwide ICT distribution network **(Fig 33)**, which allows the company to purchase a large amount of inventory to enjoy high trade discount and higher profit margin. In terms of operation, DGW excels in efficient logistics and inventory management thanks to ERP-SAP technology which it pioneered to implement a decade ago, and PSI (purchase, sales, and inventory management) practice conducted on a weekly basis as they enable effective demand forecasts **(Fig 34)**. To illustrate, during 2018-21, DGW's laptop & tablet sales surged with CAGR of 49%, outpacing industry growth of only 9%, partially attributed to the accurate forecast of the company about the lead in demand from the premiumization to high-end and the working-from-home in Covid-19. However, a large distribution network and high operational efficiency barely differentiate DGW from other large-scale ICT distributors **(Fig 35)**.

**MES as a hard-to-replicate economic moat in ICT to secure higher margins**

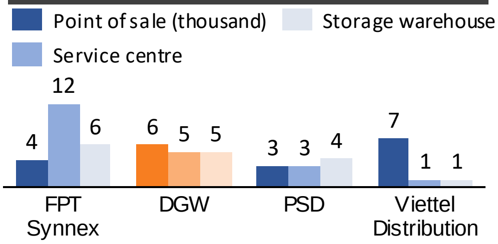
MES empowers DGW to secure higher margins, compared to its competitors, by offering higher value-added services in exchange for higher supplier rebates when buying inventories from brand partners (refer to Business Description). This sets DGW apart from other conventional

Fig 32: Key ICT Distributors' Sales In 2022 (USDbn)



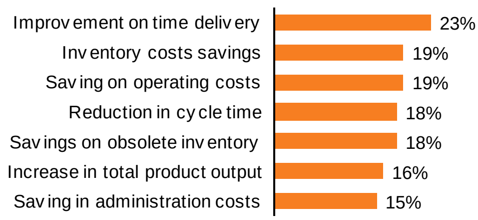

*Source: Public media, Team's compilation*

Fig 33: Key ICT Distributors' Network Scale



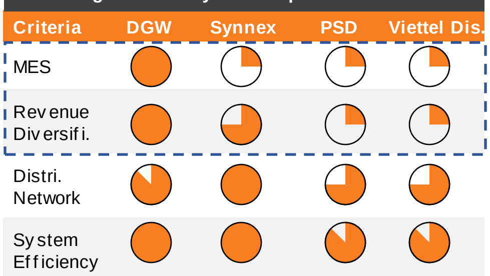

*Source: DGW, FPT Synnex, Petrosetco, Viettel., Team's compilation*

Fig 34: ERP Impact On DGW's Operation



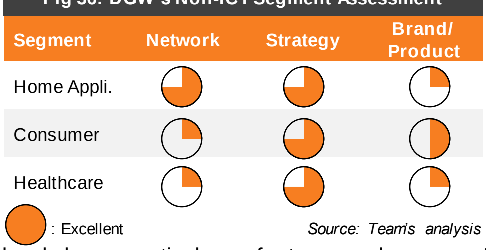

*Source: DGW, Team's compilation*

Fig 35: ICT Players Competitive Matrix




*Source: Team's analysis*

Fig 36: DGW's Non-ICT Segment Assessment




*Source: Team's analysis*

ICT wholesalers who mainly focus on 4PL (fourth party logistics), including only warehouse storage and distribution services. We expect MES to remain DGW's non-replicable economic moat thanks to deep-rooted market know-how cultivated over 20+ years.

**MES helps attract brands, both ICT and non-ICT, to grow and diversify revenue**

For ICT, MES helps DGW build creditability through a solid track record of brand development. This has allowed DGW to grow sales by attracting 30+ ICT brands so far (Appendix 14), including a notable contract with Apple in 2020. Without iPhones, smartphones sales would have grown at 2020/22 CAGR of 13% only, versus the actual growth of 30%. For non-ICT, DGW's MES-driven ICT success positions it as the preferred market-entry partner for niche non-ICT brands/products which are often overlooked by major distributors in those sectors. This has allowed DGW to grow sales from entering three non-ICT segments with 13 brands attracted. Besides revenue growth, MES is crucial for reducing sales concentration risk in a few key brands via adding new ones. While MES proves effective in the initial 3-5 years of exclusive contracts, once it expires, brands will likely diversify to work with several distributors on non-exclusive basis. This is a major risk and once it materializes, it would heavily impact DGW sales, as seen in the Xiaomi-FPT Synnex contract in 2022 where DGW lost 20% Xiaomi distribution market share in 1 year. MES provides DGW with an edge in sales diversification compared to other ICT distributors lacking a similar advantage to expand beyond ICT **(Fig 35, Appendix 13)**.

**Non-ICT: Highly ambiguous winning prospect (Fig 36)**

For non-ICT sectors, we evaluate DGW position on 3 above-mentioned dimensions, except for efficiency. We believe DGW has already performed well in this regard with its operation system.

**Home Appliance:** We presume DGW has established a robust distribution network for HA, leveraging its ICT channel overlap which enables cross-selling of new HA products to major electronic retail chains such as Dien May Xanh, Nguyen Kim, and Sieu Thi Cho Lon (these three's held 60%+ ICT retail chain market share). However, we expect substantial challenges in this cross-selling strategy due to the niche nature of its brand portfolio, attributed to two main factors: (1) retailers are hesitant to stock unpopular brands/products as they result in lower inventory turnover and increased storage costs, and (2) intense competition from existing brands with high market consolidation (Appendix 17):

**Whirlpool**: Despite being a leading US manufacturer of large HA products with a century-old brand heritage, we believe Whirpool is unlikely to succeed in Vietnam due to high competition. The market is consolidated by the top 5 brands with 66% market share (2022), among which Haier held the 3rd position with 14.7% share (Appendix 17). In the United States, where Whirlpool holds its strongest position, Haier is capturing Whirlpool's market share by offering more affordable products of comparable quality. Between 2019-22, Haier market share rose from 22% (2nd rank) to 26% (1st), Whirlpool witnessed a decline from 27% (1st) to 22% (2nd). Given these dynamics, entering Vietnam presents formidable challenges for the brand.

**Xiaomi**: Xiaomi ranks 1st in the Chinese TV market with 14% market share in 2022. However, the USD0.8bn market in Vietnam is different with a strong favor for Japanese and Korean brands, resulting in 69% market share consolidated by Samsung, LG and Sony. Meanwhile TCL, a close competitor of Xiaomi from China (ranked 2nd globally in terms of TV market share, 2022) with a highly similar "good quality at low costs" product offerings, has already captured 14% market share after 22 years in Vietnam. This implies significant entry obstacles due to high competition not only from the "Big Three's", but also from TCL as well.

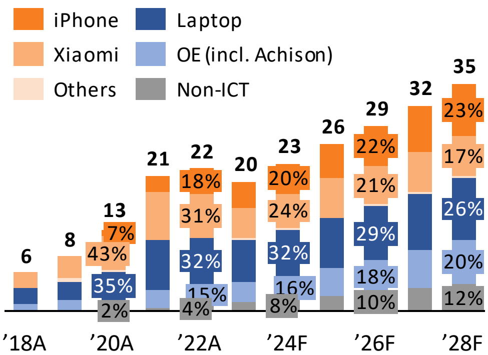
**Consumer Goods:** As a new entrant, DGW plans to enter modern trade (MT) first, then expand to general trade (GT) once its MT channel is well-established, which is a smart move as entering GT is harder and costlier than MT. However, the MT channel is remarkably smaller, only constitute 23% retail market share, versus GT of 70%. Even in MT, success seems uncertain. First, DGW's distribution network, while extensive with 1,600 stores with partners being major CVS chains and supermarkets, lacks differentiation from other major distributors like DKSH, MESA, and Phu Thai (Appendix 18). Second, its brand portfolio is weak. Lion (FMCG leader in Japan) and AB InBev (leading global beer manufacturer), fails to gain traction in Vietnam after several years in Vietnam with market share less than 1%. For LotteChilsung, DGW distributes Milkis, a niche carbonated drink, with market share of only 0.5% in Korea, its home market. Meanwhile, the likelihood of attracting a major consumer brand remains low as they usually favor well-established MES providers, such as DKSH or MESA.

**Healthcare:** For distribution network, DGW is at early stage as it has just finished obtaining necessary operational licenses in 2022. DGW's network currently covers 3 channels, including modern chains, small drugstores and hospitals. Among these, DGW is strongest in the first due to its partnership with leading players such as Long Chau and Pharmacity, while the other two are still modest as they require research effort, financial investment, and relationship-building efforts. However, the market share of drug chains is modest at 11% only, versus 89% of the other two combined (Appendix 19). For brand strategy, DGW wisely focuses on serving small local pharmaceutical manufacturers as large manufacturers prefer partnering with leading foreign distributors (DKSH, Zuellig Pharma) and prominent local distributors (DHG, SPM, etc.). Yet, this strategy entails limited sales as drug demand highly rely on doctor prescriptions who often favor heavily lobbied medicines. This poses significant hurdle for small local manufacturers with low financial capability to boost demand for their products.

Fig 37: DGW Consolidated Key Financial Metrics

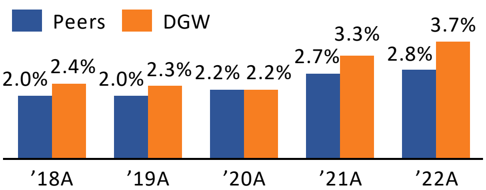
| | 2018A | 2019A | 2020A | 2021A | 2022A | 2023F | 2024F | 2025F | 2026F | 2027F | 2028F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenue growth (%) | 55% | 43% | 48% | 67% | 5% | -9% | 14% | 13% | 11% | 11% | 11% |
| EPS growth (%) | 40% | 49% | 64% | 145% | 4% | -42% | 27% | 15% | 17% | 20% | 19% |
| **Dupont Analysis** | | | | | | | | | | | |
| GPM (%) | 6.2% | 6.5% | 6.4% | 7.2% | 7.5% | 7.1% | 7.1% | 7.1% | 7.1% | 7.1% | 7.1% |
| EBIT margin (%) | 2.4% | 2.3% | 2.2% | 3.3% | 3.7% | 2.3% | 2.6% | 2.7% | 2.9% | 3.0% | 3.1% |
| Net margin (%) | 1.8% | 1.9% | 2.1% | 3.1% | 3.1% | 1.9% | 2.3% | 2.3% | 2.5% | 2.6% | 2.7% |
| Asset turnover (x) | 3.1x | 3.7x | 4.6x | 4.4x | 3.4x | 2.9x | 3.0x | 3.1x | 3.1x | 3.1x | 3.1x |
| Avg. A/E (x) | 2.6x | 2.7x | 2.6x | 3.3x | 3.1x | 2.7x | 2.7x | 2.6x | 2.6x | 2.5x | 2.4x |
| ROAE (%) | 15.0% | 19.3% | 25.7% | 44.6% | 32.5% | 15.2% | 18.1% | 19.1% | 20.1% | 20.4% | 21.0% |
| **Solvency & Liquidity Metrics** | | | | | | | | | | | |
| Net debt / Equity (%) | 100% | 53% | -21% | -21% | 47% | 15% | 8% | -1% | -13% | -21% | -32% |
| Interest coverage (x) | 3.7x | 3.6x | 8.8x | 15.1x | 7.9x | 5.0x | 4.0x | 4.4x | 5.0x | 5.6x | 6.2x |
| Current ratio (%) | 146% | 155% | 150% | 132% | 149% | 146% | 152% | 155% | 160% | 163% | 169% |
| Cash ratio (%) | 5% | 9% | 46% | 31% | 21% | 34.4% | 40.6% | 45.5% | 53.7% | 59.2% | 68.0% |
| **Efficiency Metrics** | | | | | | | | | | | |
| DOI (days) | 72 | 64 | 35 | 35 | 55 | 61 | 56 | 53 | 51 | 49 | 46 |
| DOS (days) | 33 | 25 | 25 | 25 | 28 | 37 | 33 | 31 | 30 | 28 | 26 |
| DOP (days) | 24 | 28 | 27 | 32 | 36 | 36 | 30 | 29 | 28 | 27 | 26 |
| CCC (days) | 82 | 61 | 33 | 28 | 47 | 62 | 59 | 56 | 53 | 49 | 46 |

Fig 38: DGW's Revenue '18A - '28F (VNDtn)



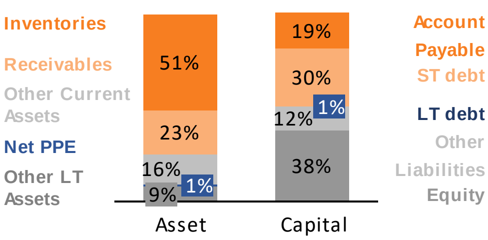

*Source: DGW, Team's analysis*

Fig 39: EBIT Margins '18A – '22A



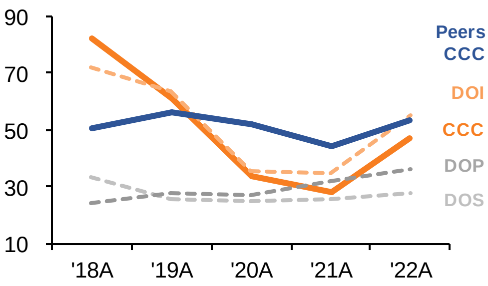

*Source: DGW, Team's analysis*

Fig 40: DGW's Balance Sheet Structure '22A



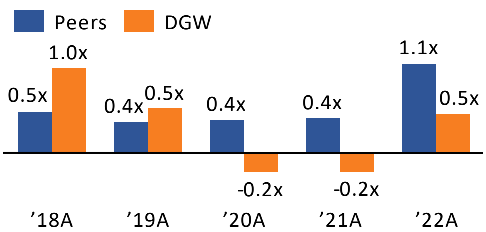

*Source: DGW, Team's analysis*

Fig 41: Days of Working Cap '18A – '22A



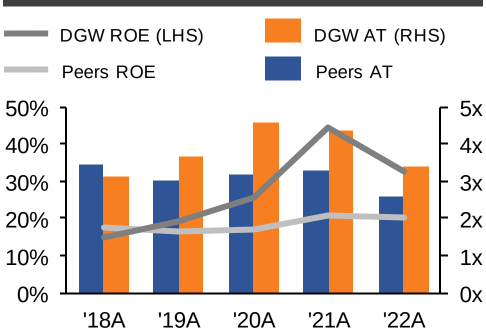

*Source: DGW, Team's analysis*

Fig 42: Net Debt / Equity '18A – '22A




*Source: DGW, Team's analysis*

Fig 43: ROAE, Asset Turnover (AT) '18A – '22A




*Source: DGW, Team's analysis*

## FINANCIAL ANALYSIS

### Matured ICT industry stabilizes growth prospect

Between 2018-22, DGW witnessed a surge in net revenue from 5.9 VNDtn to 22 VNDtn, boasting a 5Y CAGR of 39%. 2021 was marked by a sudden increase of 67% yoy in total sales, driven by (1) COVID-induced ICT boom which boosted S&L sales by 54% and 82% yoy, respectively, and (2) 200% yoy increase in iPhone sales thanks to DGW's newly-signed contract with Apple in mid-2020. In 2023, due to weak demand, we expect total net sales to drop by -8.7% yoy, attributable to -17% and -5.7% yoy drop in S&L sales, respectively. To be more specific, given net sales declined by -22% yoy during 9M23, our 2023F forecast might seem a bit over-optimistic with a 4Q23F revenue growth of 51% yoy. However, we believe our projection is justified given (1) 4Q22's low base of -49% yoy due to the halt of iPhone 14 delivery caused by COVID Apple China factory closedown, resulting in weak iPhone sales, and (2) the release of iPhone 15 in 4Q23. Moving forward, we project total revenue to stabilize at 2024/28 CAGR of 11.4%, with total S&L CAGR moderating to 8.3% annually, OE (incl. Achison) at 18% and non-ICT at 23% (detailed assumptions next part) **(Fig 38).**

### Leading margins, lowered in the short term yet improved in the medium term

We prioritize EBIT over gross margins due to periods of irregularities in the latter caused by MES. To explain, whenever DGW conducts MES for a new brand, it incurs non-frequent elevated operational expenses mainly related to promotion and marketing but enjoys improved gross margins through supplier rebates which reduces its COGS. Hence, we believe gross margin is not appropriate to compare among DGW and its peers.

Over 2018-22, DGW's EBIT margin consistently outperformed peers by an average of 0.4% pts annually, mainly thanks to top-notch MES which adds more value for brands compared to competitors **(Fig 39).** Notably, during 2021-22, margin surged to 3.5% on average, primarily due to ICT chip shortage which boosted demand so high that reduced the usual promotion expense to offload inventories. We expect EBIT margin to decline to 2.4% in 2023F because of (1) no further chip shortage, (2) price war among ICT retailers, and (3) high promotion to boost demand for non-ICT products. To compare, 9M23 EBIT margin moderated to 2.4% versus 9M22's 3.3%. After 2024, we project EBIT margins to slowly increase to 3.1% in 2028F due to (1) increased contribution from high-margin non-ICT segments and (2) less promotion expense as non-ICT products gains popularity. Hence, net margin will grow from 2.0%/2.3% in 2023/24F to 2.7% in 2028F, propelling a 2024-28F EPS CAGR of 18% (detailed next part).

### Capital-light business model to guard against economic difficulties

DGW, like other ICT distributors, operates on a capital-light business model with 90%+ of total assets being current assets, with 51% attributed to inventories, 23% to receivables and only 1% to net PPE in 2022. To fund its operations, DGW relies on ST borrowings which constituted 49% of total liabilities and 98% of total debt in 2022 **(Fig 40)**. This flexibility enables DGW to scale down fast and safeguard margins during challenging periods, explaining its stable net margin of 1.5-2% and no-net-loss experience since 2013, even during 2013 and 9M23. To further illustrate, amid this year's price war, FPT Shop EBIT margin plunged to -2.7% during 9M23, versus 2.0% in 9M22 as the firm still had to pay high fixed rental expenses, whereas DGW EBIT margin only saw a net decline of -0.4% from 9M22's 3.3%. This capital-light business model, however, demands highly effective working capital management as a key factor for success.

### Improved operational efficiency with shorter CCC

During 2018-19, DGW's CCC averaged 71 days, higher than peers at 56 days. This was due to slower DOI (68 days, versus peers' 37 days) despite a faster DOS of 29 days (versus peers' 52 days) thanks to its strong bargaining power over retailers as a market leader. During 2020-22, its to distribute iPhones which typically has very low DOI, coupled with COVID-driven ICT demand boom and the chip shortage, reduced DOI to 42 days on average, closely aligning with industry's average of 36 days. This improved cash flow, with cash recycled every 36 days on average during 2020-22, beat industry average of 50 days **(Fig 41)**. In 2023, we project CCC to increase to 62 days from 47 days in 2022 mainly due to weak demand which lengthens DOI and DOS to 61 and 37 days (from 2022's 55 and 28 days, respectively). During 2024-28, we expect CCC to gradually decline to 47 days in 2028 from 58 days in 2024, specifically:

**DOI**: We expect DOI to decline from 55 days in 2024 to 47 days in 2028, 3 weeks below 2015-19 average of 71 days (this timeframe was chosen for comparison because it is pre-COVID and pre-chip shortage), driven by (1) higher sales contribution from fast-moving iPhones (avg. 0% revenue during 2015-19 versus avg. 22% during 2024-28) and (2) increased popularity of non-ICT products, making non-ICT inventories move faster. Our forecasts remain well within the 6-to-8-week DOI target set by management to ensure DGW does not face inventory stockouts.

**DOS**: We project DOS to fasten gradually from 33 days in 2024 to 26 days in 2028, 4 days below 2015-19 average of 32 as we believe DGW will extend credit initially to incentivize retailers to stock non-ICT products, then slowly tightens payment term as those products gain popularity. More iPhone sales is also a factor because of the Apple brand's highly sought-after nature, so the payment term is typically more stringent.

**DOP**: Similarly, we anticipate DOP to decline gradually from 30 days in 2024 to 26 days in 2028, aligning with 2015-19 average, since we expect non-ICT suppliers give DGW favorable payment terms initially and then tightens gradually as adoption grows.

### Healthy leverage with strong cash generation to fund future M&A endeavors

From 2018-19, the average net debt/equity ratio stood at 0.75x, trailing behind industry peers at 0.45x, primarily due to slower CCC. However, a significant transformation occurred in 2020 when CCC considerably improved, resulting in a negative ratio of -0.2x during 2020-21, which then rebounded to 0.5x in 2022. During 2023-28, short-term debt / purchase is projected to stay around 9-11% (consistent with historical range of 8-12%), while cash flows improved significantly thanks to better CCC, making net debt / equity decline from 15% in 2023 to -32% in 2028, assuming normal operations with no M&A. This means DGW can fund future M&A with either self-generated cash or debt issuance at low cost thanks to healthy gearing level **(Fig 42)**.

### Top-tier ROE to deliver gratifying shareholders' returns

DGW consistently delivered strong ROAE, outperforming peers in the last five years, except for a brief dip in 2018 when it only achieved 15% ROAE versus peers' 18% due to lower asset turnover of 3.1x (versus peers' 4.2x). ROE gained momentum during 2020-22, reaching a peak of 45% in 2021, primarily driven by improved asset turnover and superior margins, despite lower leverage **(Fig 43)**. Looking ahead, we anticipate ROAE to dip to 15.6% in 2023 as net margin narrows to 2% and asset turnover slows to 2.9x, then gradually increase to 21% in 2028 mainly driven by net margin ticking up to 2.7%, while asset turnover slightly grow to 3.0x. This means DGW will continue to create positive Economic Value Added for shareholders in the medium term, with a 2024-28 average ROAE of 19%, higher than Cost of Equity of 14%.

**Fig 44: Valuation Summary**

| Methods | Weight | Price (VND) |
|---|---|---|
| DCF (FCFF) | 75% | 56,400 |
| P/E | 25% | 48,100 |
| **One-year TP** | | **54,300** |
| Current price | (1.12.2023) | 51,500 |
| **Upside** | | **5.5%** |

*Source: Team's valuation*

**Fig 45: DCF Output (Base Case)**

| | |
|---|---|
| **Terminal growth rate** | **3.0%** |
| **Intermediate growth rate** | **5.0%** |
| PV during 4Q23F-2028F (VNDbn) | 2,708 (27%) |
| PV of intermediate period (VNDbn) | 2,442 (25%) |
| PV of terminal value (VNDbn) | 4,742 (48%) |
| **Enterprise value (VNDbn)** | **9,892 (100%)** |
| (-) Less net debt & MI (VNDbn) | 471 |
| **Equity value (VNDbn)** | **9,421** |
| Outstanding shares (mn) | 167 |
| **Implied share price (VND)** | **56,400** |

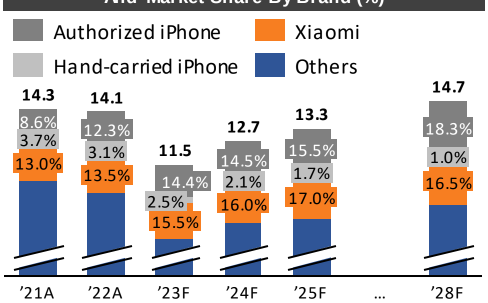
*Source: Team's valuation*

**Fig 46: WACC Calculation**

| WACC | 12.24% |
|---|---|
| **Cost of equity (CoE)** | **14.14%** |
| Risk free rate | 3.02% |
| Re-levered beta | 1.16 |
| Equity risk premium | 9.57% |
| **After tax cost of debt (CoD)** | **4.65%** |
| **Target % equity** | **80.0%** |
| **Target % debt** | **20.0%** |

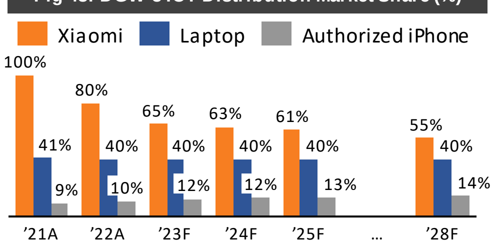
*Source: Team's valuation*

**Fig 47: Vietnam Smartphone Market Size (mn units) And Market Share By Brand (%)**



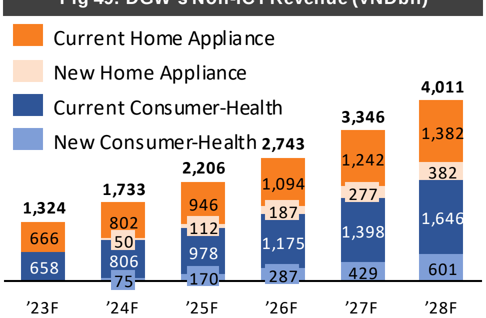

*Source: Euromonitor, IDC, Counterpoint, Team's forecasts*

**Fig 48: DGW's ICT Distribution Market Share (%)**




*Source: DGW, Fitch Solutions, Team's forecasts*

**Fig 49: DGW's Non-ICT Revenue (VNDbn)**




*Source: DGW, Euromonitor, Team's forecasts*

## VALUATION

We employed 75/25-weighted valuation of two methods: DCF and Relative P/E to arrive at one-year TP of VND54,300, implying an 5.5% upside to current price of VND51,500. We assign a higher weighting for DCF as this method better reflects DGW's solid fundamentals, while P/E is assigned less weight due to the short-term volatility nature of this ratio, and the limited number of local peers for DGW. A 75/25 mix was chosen based on DGW's shareholder mix, with 75% stake held by management and foreign investors who focus more on long-term potential, while 25% is held by local investors who are more interested in short-term trading **(Fig 44)**.

### DISCOUNTED CASH FLOW VALUATION

We used FCFF approach to yield a fair price of VND56,400 per share, implying a 9.5% premium. We used 2-stage terminal values: For 2029-33, we used intermediate growth of 5% (approximate to Vietnam's projected GDP growth until 2033, as we believe the ICT industry will grow stable alongside GDP growth); for 2024 onwards, we applied terminal growth of 3% as we believe (1) Vietnam GDP permanent growth will converge to global average of c.3%, and (2) DGW will grow at the same rate as the economy in a highly saturated industry **(Fig 45)**.

We applied a WACC of 12.24% **(Fig 46)**. The CoE is 14.14% as indicated by the CAPM model. The risk-free rate was 3.02% - the 3Y average of Vietnam 10Y government bond yield to soften short-term volatility caused by recent development in global rates. We applied an ERP of 9.57% (Damodaran), and a levered beta of 1.16 using bottom-up beta approach. The pre-tax CoD was 5.85%, calculated based on our expectation of future rate cuts and Damodaran's synthetic rating method, while target D/E was derived from DGW's current and projected capital structure.

### DISCOUNTED CASH FLOW ASSUMPTIONS

**Revenue: 13.7% yoy rebound in 2024, then stabilize at 2024/28 CAGR of 11.8%.**

Overall, smartphone sales will grow higher than industry average, driven by strong iPhone sales as a key beneficiary of premiumization trend, yet offset by slower Xiaomi sales due to loss of market share post expiration of exclusive contract. Laptop sales will moderate at industry growth, while OE will grow at 18% 2024/28 CAGR thanks to digitalization trend and FDI flows. For non-ICT, we conservatively project sales contribution to grow by 1%pts annually until 2028.

**1. Smartphone (Xiaomi & Apple):** We forecast revenue for Xiaomi and Apple (iPhone) separately by taking (1) total brand sales in Vietnam (wholesale level), multiplied by (2) DGW's distribution market share of each brand. (1) is further broken down into total smartphone volume market size in Vietnam, brand volume market share, and wholesale price. Overall, DGW smartphone sales is expected to grow at 14% yoy in 2024F from 2023's low of -17%, and then stabilize at 9.7% 2024/28 CAGR, outpacing industry growth of 5.2%.

**Xiaomi:** In 2024, sales are expected to rebound by 11% yoy, driven by industry-wide recovery, partially offset by a 2% market share loss to FPT Synnex to 63%. Looking forward, Xiaomi sales are projected to moderate below-industry at 2.7% 2024/28 CAGR, driven by (1) Xiaomi market share peaking at 17% in 2025 then slightly declining to 16.5% in 2028 as we expect a switch to premium brands, and (2) a further decline in DGW's Xiaomi distribution market share to 55% in 2028 **(Fig 47 & 48)**. We project Xiaomi price to grow at industry-average of 1.5% (equal to historical yoy change in Vietnam Household Equipment and Appliance CPI).

**Apple:** We project iPhone sales to grow at 16% 2024/28 CAGR due to (1) authorized iPhone market share growing from 14.5% to 18.3% due to premiumization trend, the crackdown on hand-carried iPhones, and favourable Apple policy for Vietnam (refer to Industry Analysis), and (2) distribution market share growing by 0.4% pts annually to 14% in 2028 due to DGW's solid position in ICT. We expect above-sector price growth at 2% as a high-end brand **(Fig 47 & 48)**.

**2. Laptop (laptop & tablet):** We calculate DGW's laptop sales by taking the total market size multipled by DGW's laptop market share. Overall, we expect DGW's sales to rebound 11% yoy in 2024F from -5.6% in 2023F, and then moderate at 6.1% 2024/28 CAGR, consistent with industry growth as we expect a stable 40% distribution market share **(Fig 47 & 48)**. Using the same approach, tablet revenue is projected to rise above the sector's 4.7% at 2024/28 CAGR of 7.7% as we expect a slight distribution market share gain from 12% in 2022 to 14% in 2028.

**3. Office Equipment (consumer equipment, corporate equipment & industrial equipment):**

**Consumer Equipment:** Given DGW's is holding only 10% market share, we expect DGW's revenue to grow at 27% 2024/28 CAGR, superior to industry annual growth of 20% due to (1) low penetration of IoT, (2) the deployment of 5G network, (3) DGW's well-built ICT distribution network, and (4) a leading ecosystem-focused portfolio including Xiaomi and Apple IoT devices.

**Corporate Equipment:** Based on a solid partnership network of cloud computing and data centers leaders like ADG Distribution, CMC Corporation, etc., revenue is expected to grow at 14% 2024/28 CAGR, versus industry growth of 10%. This is mainly driven by (1) national digital transformation program set to achieve targets by 2025, such as 50% of SMEs using digital applications and the digital economy's GMV accounting for 20% of total GDP.

**Industrial Equipment:** DGW's revenue is projected to grow from 700 VNDbn in 2023 to 1,600 VNDbn in 2028, boasting a 2023/28 CAGR of 17%, driven by (1) a 0.5 USDbn industry growth at 11% 2023/28 CAGR, and (2) Achison 0.25-0.5% annual market share gain due to its 20+ years expertise, strong brand portfolio with leading global names like 3M, Honeywell, etc. and the expansion to the North beginning in 2024.

**4. Non-ICT (home appliance & consumer-health):** We break down non-ICT revenue into two key sources, including developing existing brands, and attracting new brands **(Fig 49)**.

**Home Appliance:** Despite a well-structured ICT distribution network to consumer electronics chains, we project sales to grow at 2024/28 CAGR of 15% due to DGW's uncompetitive brands/products. In addition, although DGW could collaborate with one new brand (estimated to contribute around VND 40-60bn in the first year) per annum on the basis of its ICT MES track records, the overall CAGR of home appliances is expected to be 20% only.

**Consumer-Health:** In spite of the early-stage and sub-optimal distribution network of DGW in consumer-health, DGW is still believed to contract with two new brands each year (with a total sales of VND 65-85bn in the first year). It is because DGW's penetration strategy concentrates on small market with high growth. Nonetheless, the barriers to entry into consumer-health might constrain the segment CAGR in 2024-28F to only 26%, lower than the company's goal of 50%.

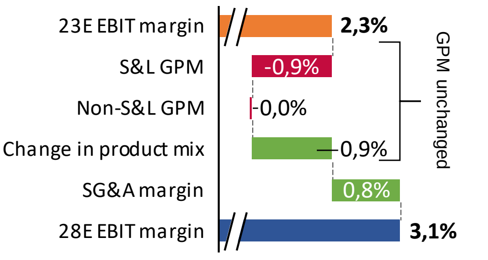
**Fig 50: Gross Profit Margin Breakdown**

| Segment | 18-19 Avg | 2022A | 2023F | 2028F |
|---|---|---|---|---|
| **Total sales** | 6.3% | 7.5% | 7.1% | 7.1% |
| **Phone** | 5.8% | 6.3% | 6.0% | 5.5% |
| iPhone | 5.8% | 6.0% | 5.9% | 5.3% |
| Xiaomi | 5.4% | 6.4% | 6.1% | 5.6% |
| Others | 6.5% | 7.5% | 7.1% | 6.5% |
| **Laptop** | 6.8% | 7.5% | 7.1% | 6.7% |
| **Office Equip,** | 7.9% | 8.1% | 8.1% | 8.1% |
| **Home App.** | 8.8% | 9.8% | 9.1% | 9.1% |
| **Consumer-Health** | 11.5% | 15% | 15.1% | 15.1% |

2023 weak demand & no chip shortage

*Source: Team's estimates & analysis*

**Fig 51: EBIT Margin Drivers 2023-28F**




*Source: Team's estimates & analysis*

**Fig 52: Relative P/E Output (Base Case)**

| | |
|---|---|
| **Mean P/E** | **14.5x** |
| DGW premium | 10% |
| Implied P/E | 16.0x |
| FY23E EPS - 5% (VND) | 2,385 |
| FY24E EPS - 95% (VND) | 3,041 |
| **Fair value (VND)** | **48,100** |

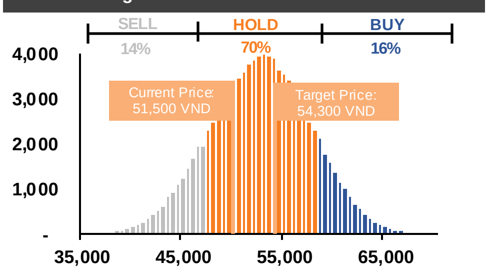
*Source: Team's valuation*

**Fig 53: Sensitivity Analysis for DCF**

| Terminal growth \ WACC | 11.2% | 11.7% | 12.2% | 12.7% | 13.2% |
|---|---|---|---|---|---|
| **1.0%** | 57.1 | 53.8 | 50.9 | 48.2 | 45.7 |
| **2.0%** | 60.4 | 56.7 | 53.4 | 50.4 | 47.6 |
| **3.0%** | 64.5 | 60.2 | 56.4 | 53.0 | 49.9 |
| **4.0%** | 69.7 | 64.6 | 60.2 | 56.2 | 52.7 |
| **5.0%** | 76.6 | 70.4 | 70.0 | 60.3 | 56.2. |

*Source: Team's analysis*

**Fig 54: Monte Carlo Simulation**




*Source: Team's analysis*

**EBIT margin: Gradually increase from 2.3% in 2023 to 3.1% in 2028**

**1. Gross Profit Margin (GPM) (+0%):** Though DGW does not disclose detailed information on GPM of each segment for confidentiality reasons, this information is critical to our forecast. Hence, we come up with our own estimates using (1) Simultaneous Linear Equations and (2) DGW's guidance that harder-to-sell products have higher GPM **(detailed GPM estimation in (Appendix 23)).** Detailed figures can be seen on **Fig 50 & 52**. Overall, total GPM is forecasted to be unchanged over 2023-28, driven by two major trends:

**The decline in GPM due to S&L (-0.9%)**: For smartphone, we expect smartphone GPM to decline gradually from 6% in 2023 to 5.5% in 2028, driven by (1) supply chain normalization, (2) MWG-led price competition among smartphone retailers which we expect to affect wholesalers as well, and (3) higher sales contribution of iPhone, which is DGW's lowest margin product due to its easy-to-sell nature, from 45% of 2023 smartphone sales to 56% in 2028. Similarly, we also expect laptop margin to decline from 7.1% to 6.7% due to supply chain normalization and competition among retailers, though to a lesser extent as competition is not as intense as the smartphone market. For non-S&L, we expect GPM to remain flat yoy due to (1) GPM from existing products will gradually decline as MES contract expires, (2) however, we do think DGW can add new brands to its portfolio which boosts GPM. Overall, GPM declines by -0.9% pts.

**More sales contribution from higher-margin non-ICT will support GPM (+0.9%):** As GPM of non-ICT segments is far higher than DGW's existing business, at 9.1% for HA and 15.1% for consumers-health (versus 6.3-7.5% for S&L), the increase sales contribution from these segments from 8% in 2023 to 12% in 2028 will support overall GPM by 0.9% pts.

**2. SG&A expense normalization (0.8%):** We expect a normalization of SG&A expense, back to 4.0% by 2028 from 2023's high of 4.8% thanks to (1) non-ICT brands increasing popularity will gradually reduce promotion expense, and (2) DGW's economies of scale in new segments.

**Working Cap: CCC improves from 61 days in 2023 to 47 days in 2028**

As discussed in our Financial Analysis, we expect a notable improvement in CCC mainly due to (1) the increase in sales of iPhone and (2) DGW's non-ICT brand expected to become more popular. These result in DOI declining from 61 days to 47 days, DOS fastening from 37 days to 26 days and DOP from 36 days to 26 days from 2023 to 2028.

**P/E RELATIVE VALUATION**

For DGW, we choose P/E instead of P/S as the company has already made profit. We also ruled out P/EBITDA since DGW operates on an asset-light model with low DA expense. P/B was not chosen as DGW is a non-financial company whose ability to generate earnings does not primarily come from its equity base like financial institutions.

Our relative valuation arrived at a share price of VND48,100, representing a -4.8% downside. We filtered 1 domestic and 5 regional peers (Appendix 21), then use their mean P/E ratio and apply a premium to land at DGW's fair value.

**Mean P/E of 14.5x**: We used the mean of peers' 3Y average TTM P/E to value DGW to reduce the effect of short-term volatility when solely rely on current TTM P/E, especially given recent volatility in the stock market driven by global uncertainties. Overall, the mean P/E was 14.5x.

**Premium of 10%**: DGW has been traded at 12.5% premium to its peers' PE ratios over the past three years, driven by its significantly superior ROE and earnings growth compared to peers over last 3 years. However, we expect that DGW's earnings growth and ROE will gradually decrease to the toward regional industry average level in the long-term, given local ICT market saturation which will still be DGW's core business over our projection period 2023-28F, and higher competition from current ICT distributors. Therefore, we believe a fairer premium to be used is 10%, equivalent to an implied P/E of 16x, slightly higher than DGW's last 3Y average P/E of 15.4x which we think is well-justified given (1) current market uptrend and (2) its improved risk profile with higher sales diversification versus the past.

**Fair value:** To derive at DGW's fair market price, we multiply P/E of 16x to projected earnings per share (EPS) over 2023-24F. We gave a 5% weight to 2023F and 95% to 2024F as we believe the market is largely pricing in a 2024F rebound, given that 2023 has nearly come to an end with high visibility for 4Q23 earnings, while the market is typically forward-looking.

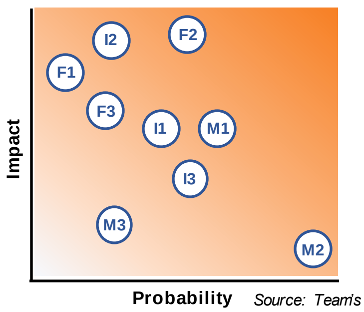
**SENSITIVITY ANALYSIS & MONTE CARLO SIMULATIONS (Fig 53 & 54)**

We conducted sensitivity analysis for the effect of changes in WACC and TGR on DCF price by flexing the two variables by 0.5% and 1%, respectively. We also ran a Monte Carlo with 100,000 iterations on key variables, including DGW's Xiaomi distribution share, Apple distribution share, laptop & tablet share, office equipment CAGR and non-ICT segment CAGR. Our analysis indicates that 70% of the outcomes fall within HOLD range. (Appendix 24).

**SCENARIO ANALYSIS:** We conducted a scenario analysis to evaluate the insight into DGW's financial performance in 2024-28. Our examination encompasses both bear and bull case, factoring in the impact of downside risks discussed in the Investment Risks section, as well as the upside risk that could lead DGW's performance exceed expectations.

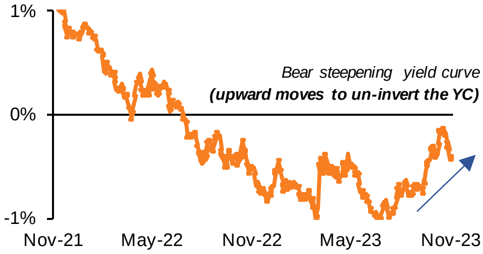
| SEGMENTS | BULL CASE | BASE CASE | BEAR CASE |
|---|---|---|---|
| ICT | 2024F GDP growth at 6.5%<br>Stronger premiumzation demand<br>DGW partnership with another well-known brand<br>Short-term retail price-cutting | 2024F GDP growth at 5.5-6.5%<br>Stable premiumization growth<br>DGW's Xiaomi market share loss to FPT Synnex<br>Medium-term retail price compeition | 2024F GDP growth below 5.5%<br>Weaker premiumization trend<br>Apple/Xiaomi partnership with another leading distributor<br>Long-term retail price war |
| **24/28 ICT Sales CAGR** | **11.8%** | **10.6%** | **9.6%** |
| Non-ICT | Succeed in developing small brands with large growth, and addition of new brands to enjoy economy of scale | Unable to attract popular or large brands, but can still grow thanks to adding niche or small brands | Fail to gain traction from existing brands, while newly-entered brands are hesitant to partner |
| **24/28 Non-ICT Sales CAGR** | **29.2%** | **23.3%** | **17.4%** |
| CCC average | 53 days - higher turnover from existing brand combined with low turnover of the new added ones | 54 days with 6-8 weeks inventory level remained, receivable and payable turnover normalize | 56 days - sluggish niche brand penetration makes high inventory and receivable lengthened |
| **DCF Target Price (75%)** | **74,400** | **56,400** | **30,400** |
| Implied P/E | **20.0x** | **16.0x** | **12.0x** |
| **Relative Target Price (25%)** | **50,300** | **48,100** | **47,900** |
| Upside/downside | **+33%** | **+5%** | **-32%** |
| **Blended Target Price** | **68,400** | **54,300** | **34,800** |
| **Rating** | **BUY** | **HOLD** | **SELL** |

Fig 55: Risk Matrix




Source: Team's analysis

Fig 56: US Treasury 2Y10Y Yield Spread




Source: Team's analysis

Fig 57: DOI Sensitivity

| Δ Avg 2024/28 DOIS | Target Price | %Change in TP |
|---|---|---|
| -1.0 | 59,300 | +9.1% |
| -0.5 | 56,800 | +4.5% |
| - | **54,300** | - |
| +0.5 | 51,900 | -4.5% |
| +1.0 | 49,500 | -9.1% |

Source: Team's analysis

Fig 58: Avg. 2024-28 Dist. Market Share Sensitivity

| DGW's iPhone Dist. Mark. Share \ DGW's Xiaomi Dist. Market Share | 51.0% | 54.0% | 57.0% | 60.0% | 63.0% |
|---|---|---|---|---|---|
| 11.1% | 42.2 | 44.6 | 46.9 | 49.2 | 51.4 |
| 12.0% | 44.8 | 47.2 | 49.5 | 51.8 | 54.0 |
| 13.0% | 47.3 | 49.7 | 52.0 | **54.3** | 56.6 |
| 14.0% | 49.7 | 52.1 | 54.5 | 56.7 | 59.0 |
| 15.0% | 52.0 | 54.5 | 56.8 | 59.1 | 61.3 |

Source: Team's analysis

## DOWNSIDE RISKS

**[M1] Market Risk | Global recession | Moderate Impact, Moderate Probability**

The US economy's unexpected resilience so far, however we are still wary of a 2024 recession, indicated by a bear steepening UST yield curve (usually signals an imminent recession) **(Fig 56)** and emerging signs of demand US consumers (Appendix 7). Given Vietnam's close trading relationship to the US, a recession could there could really hurt our economy, taking a further toll on domestic spending. This would adversely impact DGW's top and bottom line. **Valuation Impact:** We factored this risk through lower-than-expected 2024/25F sales growth, lower margins (to support demand) and slower CCC in our bear case.

**Mitigant:** (1) DGW is expanding into new segments to have a more diversified revenue stream with different levels of demand elasticity (e.g. consumers-healthcare are more inelastic than ICT). (2) DGW boasts a capital-light business model and a healthy balance sheet allows DGW to withstand economic hardships.

**[M2] Market Risk | Unfavorable FX movements | Low Impact, High Probability**

As 50% of inventory purchase from brands are made in USD (whist the other 50% is priced in VND), DGW is exposed to unfavorable movements in the USD/VND FX rate. This risk is has become more pronounced this year due to (1) a stronger dollar (the USD/DXY index has stayed above 105 since September) and (2) unprecedented negative interest rate spreads of c.5% between the VND and USD overnight interbank rates (since Fed was hiking while the SBV was lowering rates), resulting in a depreciating VND especially during recent months**. Valuation Impact**: FX risk has no major impact on our valuation, as our TP only reduces by 2% even if we assume an extreme case where 2023-24 FX loss is 5 times higher than current forecasts (due to minor 0.1% sales contribution).

**Mitigant:** DGW actively involves in FX hedging contracts with banks, thanks to which DGW has incurred no net FX loss during 2018-22, and even in 9M23 it enjoyed 30 VNDbn FX gain.

**[I1] Industry Risk | Price war among ICT retailers | Moderate Impact, Moderate Probability**

In its effort to gain market share, MWG can sacrifice margins more than we expected which would drive others to do the same. We believe this will also pressure ICT wholesalers to reduce prices to support their customers and defend their own market share (i.e. wholesalers with lower price will be favored). **Valuation Impact**: A 1% decrease in Smartphone GPM across the forecast period, from 4.6% to 4.3% during 2024-28 (versus current projection of 5.6% and 5.3%), will reduce our TP to VND47,140, 12.9%% lower than current TP.

**Mitigant:** (1) DGW is diversifying into higher-margin non-ICT sector to protect margin and reduce concentration risk in the ICT sector. (2) MWG is unlikely to further squeeze its margins in 2024 as much as 2023 given this year's significant decline in margin (9M23 net margin of 0.1%, versus 9M22 of 3.4%), and 2024 market recovery.

**[I2] Industry Risk | Retailers and brands bypassing wholesalers | High Impact, Low Probability**

Retailers or the brands itself might have the incentive to deal directly with each other and bypass DGW to earn higher margins. **Valuation Impact**: This will lead to a decline in DGW's distribution market share, which is evaluated in **Fig 54**.

**Mitigant:** The risk appears low as brands manage larger orders, typically beyond retailers' capacity, except during peak times. Wholesalers like DGW can handle such volumes. Retailers can save time, taking 2-3 days to buy iPhones from DGW compared to 6-8 weeks directly from brands, as per the CEO. Brands with their stores, such as Apple, primarily focus on marketing and might not now challenge retailers due to higher prices and limited product availability.

**[F1] Firm Risk | Inventory risk | High Impact, Low Probability**

As a wholesaler, DGW is exposed to various risks related to inventory (accounts for 50% of total assets, 2022). Ineffective inventory management can result in (1) high storage costs, (2) inventory write-off expenses due to ICT product obsolescence, and (3) slower CCC. **Valuation impact:** An increase of 1 days in DOI over the forecast period leads to a decrease of -9.1% on our TP **(Fig 57).**

**Mitigant:** (1) A decade-old experience implementing ERP system to manage inventory effectively. (2) Given the nature of the products distributed by DGW being sensitive to demand, if DGW has hard-to-sale inventory, the company can sell at a discounted price to quickly push the inventory. (3) PSI practice (Purchase-Sales-Inventory) are conducted on a weekly basis to forecast market demand to ensure DGW orders enough inventories to serve its customers.

**[F2] Firm Risk | Losing market share due to unfavorable decisions from brands | High Impact, Moderate Probability**

With its high dependence on brand contracts, DGW faces the threat of losing market share due to (1) key brands signing contracts with other distributors (as happened once when Xiaomi signed with Synnex FPT as its second distributor post the expiration of exclusive contract with DGW, resulting in DGW losing 20% Xiaomi distribution market share in 2022 alone) and (2) losing contracts with key brands if DGW fails to meet its commitment with brands. **Valuation impact:** We ran a sensitivity analysis to evaluate impact of this risk to our TP, shown in **Fig 58.**

**Mitigant:** (1) Diversifying products into new segments. (2) A strong track record of serving big brands, top-notch MES and an efficient ERP-powered operation will ensure DGW can fulfill its commitment with brands.

## UPSIDE RISKS

**[M3] Market Risk | Above-expectation 2024 ICT rebound | Moderate Impact, Low Probability**

Despite our concerns over US weakening, retailers might re-stock their inventories more than we believe. This would propel a strong economic rebound in 2024, fueling a stronger-than-expected ICT rebound. DGW as a leading ICT distributor will stand to benefit from this uptrend. **Valuation impact:** In 2024-25, an additional growth of 5% pts in S&L industry sales, driven by stronger replacement demand, will increase our TP by 3%.

**[I3] Industry Risk | Stronger-than-expected iPhone sales | Moderate Impact, Moderate Probability**

A growing middle class with a strong affinity for Apple products, and Apple's increasing focus on serving the Vietnamese market can lead to higher market share gain of authorized iPhones in Vietnam than we expected, which will improve DGW's cash flows (shorter CCC) and earnings. Additionally, growth can also come from DGW gaining market share from other distributors thanks to its solid track record and an extensive nationwide distribution network, with customers being major ICT retailers like MWG and FPT Shop. **Valuation impact:** Higher revenue growth and shorter CCC are captured both in our bull case scenario, in our Monte Carlo simulation.

**Mitigant:** (1) Unfavorable economic outlook could hinder consumer spending on luxury products. (2) The other three authorized Apple distributors, including Viettel, FPT Retail, and Petrosetco, may hinder DGW from gaining market share as Apple does not need MES. (3) Lack of innovation and increased competition from "high-tech at affordable prices" products from Chinese brands could result in a decrease in preference for iPhone.

**[F3] Firm Risk | Better-than-expected diversification by adding more brands/products | High Impact, Low Probability**

DGW's prospects within the non-ICT sector are limited due to intense competition and the challenges in establishing partnerships with prominent, established brands. However, with the influx of new international brands targeting Vietnam's growing economy, DGW has an opportunity to leverage this trend and expand its business by incorporating more specialized niche brands/products. **Valuation impact:** Adding an unexpected additional brand every year in a non-ICT segment contributes to an average of 2% rise in our TP.

**Mitigant:** (1) Introducing additional niche brands/products that minimal impact companies' growth. (2) Distributing through the GT Channel is challenging and costly, prompting DGW to distribute via MT, making it challenging to reach customers. (3) Niche products/brands possess traits that make sales more challenging and expensive.

## APPENDIX 1: CONSOLIDATED FINANCIAL STATEMENTS

*Source: Company's reports, Team's forecast*

| BALANCE SHEET (bil VND) | 2018A | 2019A | 2020A | 2021A | 2022A | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Current assets** | **2,118** | **2,288** | **2,862** | **6,256** | **5,782** | **6,955** | **7,744** | **8,683** | **9,633** | **10,671** | **11,834** |
| Cash & Cash Equivalents | 71 | 131 | 878 | 1,494 | 828 | 1,641 | 2,057 | 2,571 | 3,235 | 3,886 | 4,719 |
| Short-term investment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Account receivable | 601 | 585 | 1,131 | 1,786 | 1,579 | 2,019 | 2,071 | 2,218 | 2,322 | 2,420 | 2,511 |
| Inventories | 1,314 | 1,454 | 827 | 2,888 | 3,254 | 3,145 | 3,445 | 3,701 | 3,862 | 4,127 | 4,340 |
| Others | 132 | 118 | 25 | 87 | 121 | 150 | 171 | 193 | 214 | 237 | 263 |
| **Non-current assets** | **105** | **118** | **207** | **289** | **573** | **513** | **497** | **484** | **472** | **461** | **452** |
| Long-term receivables | 4 | 4 | 9 | 18 | 22 | **16** | 16 | 16 | 16 | 16 | 16 |
| Fixed assets | 84 | 81 | 88 | 94 | 96 | 112 | 125 | 139 | 155 | 173 | 192 |
| + Tangible FA | 23 | 20 | 27 | 34 | 32 | 38 | 42 | 47 | 52 | 58 | 65 |
| + Intangible FA | 62 | 62 | 61 | 60 | 63 | 75 | 83 | 92 | 103 | 114 | 127 |
| Long-term investments | 4 | 6 | 60 | 65 | 71 | 61 | 61 | 61 | 61 | 61 | 61 |
| Other NCA (excl. goodwill) | 7 | 26 | 46 | 108 | 107 | 76 | 76 | 76 | 76 | 76 | 76 |
| Goodwills | 5 | 0 | 4 | 3 | 277 | 248 | 220 | 192 | 164 | 136 | 108 |
| **TOTAL ASSETS** | **2,223** | **2,405** | **3,069** | **6,545** | **6,355** | **7,468** | **8,242** | **9,167** | **10,105** | **11,132** | **12,286** |
| | | | | | | | | | | | |
| **LIABILITIES** | **1,457** | **1,480** | **1,910** | **4,764** | **3,932** | **4,794** | **5,153** | **5,638** | **6,080** | **6,568** | **7,093** |
| Short-term liabilities | 1,452 | 1,476 | 1,906 | 4,753 | 3,882 | **4,773** | **5,110** | **5,581** | **6,013** | **6,492** | **7,008** |
| Short-term borrowings | 837 | 620 | 630 | 1,117 | 1,915 | 2,044 | 2,305 | 2,482 | 2,660 | 2,852 | 3,075 |
| Account payable | 547 | 700 | 941 | 2,844 | 1,210 | 1,824 | 1,774 | 1,933 | 2,060 | 2,207 | 2,347 |
| Other | 68 | 155 | 335 | 792 | 757 | 905 | 1,031 | 1,166 | 1,293 | 1,433 | 1,586 |
| Long-term liabilites | 5 | 4 | 5 | 10 | 50 | 21 | 43 | 57 | 68 | 77 | 85 |
| Loan | 0 | 0 | 0 | 0 | 41 | 10 | 32 | 46 | 57 | 66 | 74 |
| Others | 5 | 4 | 5 | 10 | 9 | 11 | 11 | 11 | 11 | 11 | 11 |
| **EQUITY** | **766** | **925** | **1,159** | **1,781** | **2,423** | **2,674** | **3,089** | **3,529** | **4,025** | **4,564** | **5,193** |
| Chartered capital | 408 | 420 | 432 | 886 | 1,632 | **1,672** | 1,672 | 1,672 | 1,672 | 1,672 | 1,672 |
| Retained earning | 303 | 446 | 670 | 838 | 707 | 923 | 1,337 | 1,777 | 2,273 | 2,812 | 3,441 |
| MI | 1 | 4 | 2 | 2 | 29 | **24** | 24 | 24 | 24 | 24 | 24 |
| Others | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| **TOTAL FUNDING RESOURCES** | **2,223** | **2,405** | **3,069** | **6,545** | **6,355** | **7,468** | **8,242** | **9,167** | **10,105** | **11,132** | **12,286** |

| P&L STATEMENT (VNDbn) | 2018A | 2019A | 2020A | 2021A | 2022A | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Net revenue** | **5,937** | **8,488** | **12,536** | **20,923** | **22,028** | **20,110** | **22,910** | **25,907** | **28,731** | **31,837** | **35,255** |
| COGS | (5,568) | (7,940) | (11,733) | (19,415) | (20,365) | (18,669) | (21,314) | (24,104) | (26,727) | (29,588) | (32,735) |
| **Gross profit** | **369** | **548** | **803** | **1,508** | **1,663** | **1,441** | **1,596** | **1,802** | **2,004** | **2,249** | **2,520** |
| Selling expense | (135) | (248) | (434) | (708) | (722) | (782) | (852) | (957) | (1,029) | (1,120) | (1,218) |
| Admin expense | (91) | (101) | (90) | (114) | (136) | (178) | (181) | (187) | (192) | (201) | (204) |
| **EBIT** | **143** | **199** | **278** | **686** | **805** | **482** | **564** | **658** | **783** | **928** | **1,097** |
| DA | 5 | 6 | 6 | 6 | 13 | 41 | 42 | 44 | 46 | 48 | 50 |
| **EBITDA** | **149** | **206** | **284** | **692** | **818** | **523** | **606** | **702** | **829** | **976** | **1,147** |
| Financial income | (6) | 9 | 50 | 138 | 65 | 27 | 76 | 75 | 73 | 101 | 131 |
| Non-interest financial revenue | 32 | 61 | 78 | 144 | 163 | 129 | 137 | 141 | 141 | 156 | 173 |
| Interest revenue | 0 | 0 | 5 | 36 | 46 | 42 | 81 | 98 | 119 | 146 | 175 |
| Non-interest fin. expense | (7) | (4) | (6) | (10) | (50) | (16) | (11) | (25) | (41) | (45) | (50) |
| Interest expense | (32) | (48) | (27) | (32) | (94) | (128) | (132) | (141) | (146) | (155) | (167) |
| Net other income/expenses | 2 | 0 | 2 | -2 | -6 | 3 | 0 | 0 | 0 | 0 | 0 |
| Income from affiliates & joint ventures | 1 | 1 | 4 | -2 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PBT** | **140** | **210** | **334** | **820** | **862** | **512** | **668** | **767** | **894** | **1,050** | **1,227** |
| CIT | -30 | -47 | -66 | -165 | -179 | -114 | -141 | -162 | -188 | -221 | -259 |
| **NPAT** | **110** | **163** | **267** | **655** | **684** | **398** | **528** | **605** | **705** | **828** | **968** |
| Minority interest | -1 | -1 | 0 | 1 | 0 | 8 | 5 | 5 | 6 | 7 | 8 |
| **NPAT-MI** | **111** | **164** | **267** | **654** | **684** | 390 | 523 | 600 | 699 | 821 | 960 |

| CF STATEMENT (VNDbn) | 2018A | 2019A | 2020A | 2021A | 2022A | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EBIT** | **143** | **199** | **278** | **686** | **805** | **482** | **564** | **658** | **783** | **928** | **1,097** |
| Other financial income / (expense) | 29 | 59 | 83 | 166 | 152 | 158 | 207 | 215 | 219 | 257 | 298 |
| Tax paid | (30) | (47) | (66) | (165) | (179) | (111) | (141) | (162) | (188) | (221) | (259) |
| EBIAT | 142 | 211 | 294 | 687 | 778 | 517 | 659 | 746 | 852 | 984 | 1,136 |
| DA | 5 | 6 | 6 | 6 | 13 | 41 | 42 | 44 | 46 | 48 | 50 |
| **Cash Flow Before Change in WC** | **147** | **217** | **301** | **693** | **791** | **558** | **702** | **790** | **898** | **1,032** | **1,186** |
| Change in Working Capital | (247) | 131 | 588 | (426) | (1,866) | 408 | (295) | (135) | (29) | (103) | (32) |
| (Inc)/Dec in A/R | (121) | 16 | (551) | (664) | 203 | (434) | (52) | (147) | (104) | (98) | (91) |
| (Inc)/Dec in Inventory | (431) | (139) | 626 | (2,061) | (366) | 108 | (296) | (260) | (157) | (269) | (209) |
| (Inc)/Dec in Other CA | (30) | 14 | 93 | (62) | (34) | (29) | (21) | (22) | (21) | (23) | (25) |
| Inc/(Dec) in A/P | 318 | 153 | 241 | 1,903 | (1,634) | 615 | (52) | 159 | 126 | 148 | 140 |
| Inc/(Dec) in other CL | 16 | 87 | 179 | 457 | (35) | 148 | 126 | 135 | 127 | 140 | 154 |
| Interest expense | (32) | (48) | (27) | (32) | (94) | (128) | (132) | (141) | (146) | (155) | (167) |
| **CFO** | **(132)** | **301** | **862** | **235** | **(1,170)** | **839** | **275** | **515** | **722** | **773** | **986** |
| CapEx | (6) | 2 | (17) | (12) | (288) | (29) | (27) | (30) | (34) | (37) | (41) |
| Other LT investments | (11) | (21) | (74) | (68) | (4) | 41 | - | - | - | - | - |
| **CFI** | **(16)** | **(19)** | **(91)** | **(80)** | **(292)** | **12** | **(27)** | **(30)** | **(34)** | **(37)** | **(41)** |
| Increase / (Pay-off) of ST loans | 216 | (217) | 9 | 488 | 798 | 131 | 258 | 180 | 175 | 195 | 220 |
| Increase / (Pay-off) of LT loans | - | - | - | - | 41 | (31) | 22 | 14 | 11 | 9 | 8 |
| Changes in other LT liabilities | 2 | (0) | 0 | 6 | (1) | 2 | - | - | - | - | - |
| Changes in Charterd Capital | - | 12 | 12 | 454 | 747 | 40 | - | - | - | - | - |
| Dividend Payment | (32) | (21) | (43) | (44) | (91) | (164) | (106) | (160) | (203) | (282) | (331) |
| Changes in other Equity accounts | (0) | 4 | (3) | (442) | (698) | (14) | (5) | (5) | (6) | (7) | (8) |
| **CFF** | **186** | **(222)** | **(24)** | **461** | **796** | **(37)** | **170** | **29** | **(24)** | **(86)** | **(111)** |
| **NET CASH FLOW IN YEAR** | **37** | **60** | **747** | **616** | **(667)** | **814** | **418** | **513** | **665** | **650** | **834** |
| Cash – Beginning | 34 | 71 | 131 | 878 | 1,494 | 828 | 1,642 | 2,060 | 2,573 | 3,238 | 3,888 |
| Cash - Ending | 71 | 131 | 878 | 1,494 | 828 | 1,642 | 2,060 | 2,573 | 3,238 | 3,888 | 4,722 |

| REVENUE BREAKDOWN (VND bn) | 2018A | 2019A | 2020A | 2021A | 2022A | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. NET REVENUE** | **5,944** | **8,492** | **12,535** | **20,971** | **22,085** | **20,111** | **22,910** | **25,907** | **28,731** | **31,837** | **35,255** |
| 1. Phone | 2,355 | 3,896 | 6,384 | 9,857 | 10,785 | 8,960 | 10,199 | 11,561 | 12,556 | 13,621 | 14,761 |
| Xiaomi | 2,202 | 3,467 | 5,400 | 7,200 | 6,900 | 4,871 | 5,402 | 5,887 | 5,953 | 5,995 | 6,016 |
| iPhone | - | - | 900 | 2,600 | 3,826 | 4,000 | 4,619 | 5,444 | 6,304 | 7,237 | 8,239 |
| Others | 153 | 429 | 84 | 57 | 59 | 89 | 177 | 230 | 299 | 389 | 506 |
| 2. Laptop & tablet | 2,402 | 2,974 | 4,350 | 7,899 | 7,027 | 6,630 | 7,333 | 7,790 | 8,273 | 8,783 | 9,319 |
| 3. Office equipment (incl. Achison) | 1,111 | 1,367 | 1,536 | 2,616 | 3,320 | 3,147 | 3,584 | 4,273 | 5,064 | 5,973 | 7,026 |
| 4. Home appliance | - | - | - | 223 | 556 | 716 | 914 | 1,135 | 1,376 | 1,634 | 1,902 |
| 5. Consumer goods | 76 | 255 | 265 | 376 | 397 | 658 | 881 | 1,147 | 1,462 | 1,827 | 2,246 |
| **ICT** | **5,868** | **8,237** | **12,270** | **20,372** | **21,132** | **18,737** | **21,115** | **23,624** | **25,893** | **28,376** | **31,106** |
| **Non-ICT** | **76** | **255** | **265** | **599** | **953** | **1,374** | **1,795** | **2,282** | **2,838** | **3,461** | **4,149** |
| **II. REVENUE GROWTH** | | **43.0%** | **48.0%** | **67.0%** | **5.0%** | **-8.9%** | **13.9%** | **13.1%** | **10.9%** | **10.8%** | **11%** |
| 1. Phone | | 65.0% | 64.0% | 54.0% | 9.0% | -16.9% | 13.8% | 13.4% | 8.6% | 8.5% | 8.4% |
| Xiaomi | | 57.0% | 55.0% | 33.0% | -4.0% | -29.4% | 10.9% | 9.0% | 1.1% | 0.7% | 0.4% |
| iPhone | | - | - | 189.0% | 47.0% | 4.5% | 15.5% | 17.9% | 15.8% | 14.8% | 13.8% |
| Others | | 26.0% | -57.0% | -33.0% | 4.0% | 50.0% | 100.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| 2. Laptop & tablet | | 24.0% | 46.0% | 82.0% | -11.0% | -5.7% | 10.6% | 6.2% | 6.2% | 6.2% | 6.1% |
| 3. Office equipment (incl. Achison) | | 23.0% | 12.0% | 70.0% | 27.0% | -5.2% | 13.9% | 19.2% | 18.5% | 18.0% | 17.6% |
| 4. Home appliance | | - | - | - | 149.0% | 28.8% | 27.6% | 24.2% | 21.3% | 18.7% | 16.4% |
| 5. Consumer goods | | 236.0% | 4.0% | 42.0% | 6.0% | 65.6% | 34.0% | 30.3% | 27.4% | 25.0% | 23.0% |
| **ICT** | | | | | | **-11%** | **13%** | **12%** | **10%** | **10%** | **10%** |
| **Non-ICT** | | | | | | **44%** | **31%** | **27%** | **24%** | **22%** | **20%** |
| **III. REVENUE CONTRIBUTION** | **100%** | **100%** | **100%** | **100%** | **100%** | ***100%*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** |
| 1. Phone | 40% | 46% | 51% | 47% | 49% | 45% | 45% | 45% | 44% | 43% | 42% |
| Xiaomi | 37% | 41% | 43% | 34% | 31% | *24%* | *24%* | *23%* | *21%* | *19%* | *17%* |
| iPhone | 0% | 0% | 7% | 12% | 17% | *20%* | *20%* | *21%* | *22%* | *23%* | *23%* |
| Others | 3% | 5% | 1% | 0% | 0% | *0%* | *1%* | *1%* | *1%* | *1%* | *1%* |
| 2. Laptop & tablet | 40% | 35% | 35% | 38% | 32% | 33% | 32% | 30% | 29% | 28% | 26% |
| 3. Office equipment (incl. Achison) | 19% | 16% | 12% | 12% | 15% | 16% | 16% | 16% | 18% | 19% | 20% |
| 4. Home appliance | 0% | 0% | 0% | 1% | 3% | 4% | 4% | 4% | 5% | 5% | 5% |
| 5. Consumer goods | 1% | 3% | 2% | 2% | 2% | 3% | 4% | 4% | 5% | 6% | 6% |
| **ICT (1+2+3)** | | | | | | **93%** | **92%** | **91%** | **90%** | **89%** | **88%** |
| **Non-ICT (4+5)** | | | | | | **7%** | **8%** | **9%** | **10%** | **11%** | **12%** |

## APPENDIX 1B: 2018-22 XIAOMI AND IPHONE SALES ESTIMATION

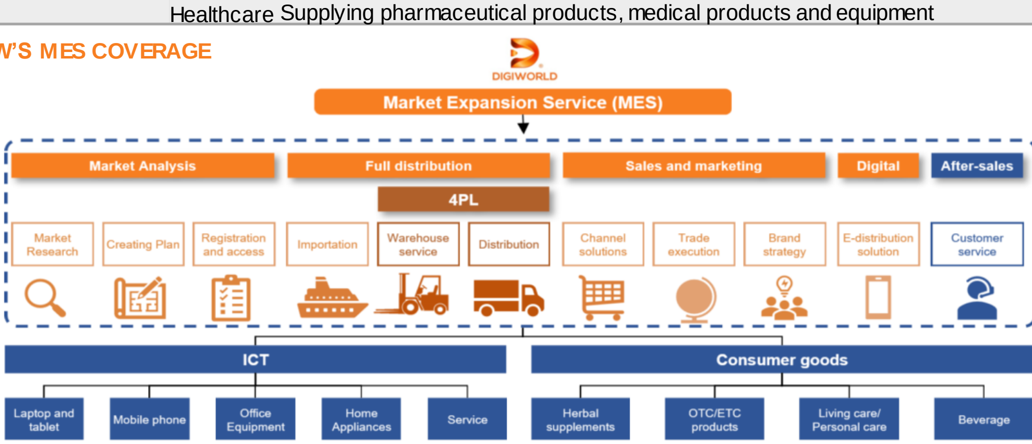
Per DGW disclosure, Xiaomi & iPhone sales accounted for c.98-99% smartphone sales, while the remaining is for other non-significant brands:

- For 2018-19, as there was not any iPhone sales, we estimated sales from Xiaomi to be dominant at 2,200 VNDbn and 3,700 VNDbn (93% & 95% sales, respectively).
- For 2020, DGW announced its plan to distribute 50.000 iPhones from 2H20. We assume management can only reach 90% of their target (as iPhones were new to DGW so we them having over-estimated market demand. Typically, retail price for iPhone is around 22-24 VNDmn, so we assume wholesale price to be around 20 VNDmn. Overall, we came to iPhone sales of 900 VNDbn. Thus, Xiaomi sales should be 5,400 VNDbn.
- For 2021, according to CafeF, Xiaomi sales were 7,200 VNDbn. Thus, iPhone sales should be 2,600 VNDbn, while 57 VNDbn belongs to others.
- For 2022, during 3Q22 investor meeting (livestream on Facebook), the CEO shared that Xiaomi market share for FPT Synnex is around 20-30% (i.e. DGW market share of 70-80%). However, during our company visit, he said in 2023, DGW market decreased to 65%. Hence, we assume 2022 Xiaomi phone distribution market share of 80%. By multiplying this number by total sales of Xiaomi in Vietnam in 2022 (market size multiplied by market share), we estimate 2022's Xiaomi sales of 6,900 VNDbn. Hence, iPhone sales was estimated to be around 3,800 VNDbn.

## APPENDIX 2: SUBSIDIARIES & AFFILIATES

| COMPANY/BUSINESS | SEGMENT | BUSINESS DESCRIPTION | STAKE (2022) |
|---|---|---|---|
| | | **SUBSIDIARIES** | |
| DIGIWORLD VENTURE | All | Managing DGW's subsidiaries, affiliates | 100.00% |
| DIGITAL TECHNOLOGY | ICT | Providing and managing commercial marketing services on technology platform | 100.00% |
| CSV HEALTHCARE | Healthcare | Management and property owner of functional food and FMCG brands | 80.00% |
| MARKETING EXPANSION SERVICE JSC ("CL") | FMCG | Developing FMCG industry | 90.15% |
| BELL VINA TRADING AND PRODUCTION | All | Import and export of products traded by DGW | 76.99% |
| ACHISON | Industrial equipment | Provide labor protection products, industrial equipment | 60.00% |
| B2X CARE SOLUTIONS VIETNAM | All | Managing subsidiaries, affiliates | 100.00% |
| | | **AFFILIATES** | |
| DAI TIN PHARMACEUTICAL PRODUCT | Healthcare | Providing pharmaceuticals, medical products, equipment and preservation services of pharmaceuticals | 36.01% |
| VIET MONEY | ICT | Providing credit services and wholesaling technology equipment | 21.86% |
| B2X GROUP | ICT | Providing after-sales services to ICT brands | 49.10% |
| DPHARMA | Healthcare | Supplying pharmaceutical products, medical products and equipment | 36.01% |

## APPENDIX 3: DGW'S MES COVERAGE



## APPENDIX 4: PRODUCT PORTFOLIO & BRAND PARTNERSHIP

| Sector | Segment | | Brand Partnership |
|---|---|---|---|
| ICT | Mobile Phone | | mi, HUAWEI, TCL, ZTE |
| ICT | Laptop & Tablet | | hp, DELL, ASUS, acer, TOSHIBA, Lenovo, mi, HUAWEI, TCL, FUJITSU, alcatel |
| ICT | Office Equipment | PC, Server, Workstation & Hardware | hp, DELL, ASUS, acer, FUJITSU, Lenovo, LG, PHILIPS, AOC, SEAGATE, SUPERMICRO |
| ICT | Office Equipment | Cloud & Software | SYNOPSYS, 3PAR, IBM, amazon web services, freshworks |
| ICT | Office Equipment | IoTs | logitech, YI, mi, HUAWEI, belkin, amazfit |
| ICT | Office Equipment | Solution Device | TOTOLINK, TRENDnet, rapoo, APC Legendary Reliability, EATON, mi |
| ICT | Industrial Equipment | | 3M, Honeywell, BRADY, DUPONT, Ansell |
| Non-ICT | Home Appliance | | Whirlpool, Joyoung, Westinghouse, mi |
| Non-ICT | Consumer Goods | | life.love. LION, ABInBev, LOTTE CHILSUNG BEVERAGE, Mitsuei |
| Non-ICT | Healthcare | | Nestlé HealthScience, REGENflex, Genacol, VSTENT, RapidFor |

## APPENDIX 5: OVERVIEW OF BOARD MEMBERS

| Name | Position | Tenure (Y) | Shareholdings | Education | Work Experience |
|---|---|---|---|---|---|
| Doan Hong Viet | Chairman | 20 | 37.1% | Bachelor's degree from University of Economics | Chairman of DHV MTV Company Limited |
| Dang Kien Phuong | Member | 20 | 5.2% | Bachelor's degree | Chairwoman of DKP MTV Company Limited |
| To Hong Trang | Member | 20 | 3.2% | Bachelor's degree from Foreign Trade University<br>Bachelor's degree from University of Languages and International Studies | Chairwoman of TOHT MTV Company Limited |
| Nguyen Duy Tung | Independent Member | 3 | 0.0% | Bachelor's degree in Law from University of Law<br>Bachelor's degree in Accounting from University of Economics | Vice Director at Ree Corporation<br>Deputy Director at REE electric appliances<br>Financial Director of DOMESCO |
| Tran Bao Minh | Independent Member | 3 | 0.0% | Master's degree in Marketing from Western Sydney University | Deputy General Director at A Chau Food (AFC)<br>CEO, General Director at International Dairy Product (IDP)<br>General Director at Diageo Viet Nam<br>Vice President at Nutifood |

## APPENDIX 6: ESG SCORECARD

Based on MSCI and CFAI standards, we evaluate each as follows:

1 – The company did not follow the criteria at all, 2 – The company did not fully follow the criteria,
3 – The company followed the criteria, 4 – The company has excellent policies on the criteria.

| ESG Pillars | Weighted score |
|---|---|
| **Environmental** | 30% |
| **Social** | 30% |
| **Governance** | 40% |

| Average score | Rating |
|---|---|
| **60%- 70%** | Satisfactory |
| **70%- 80%** | Good |
| **80%- 90%** | Very Good |
| **90%- 100%** | Excellent |

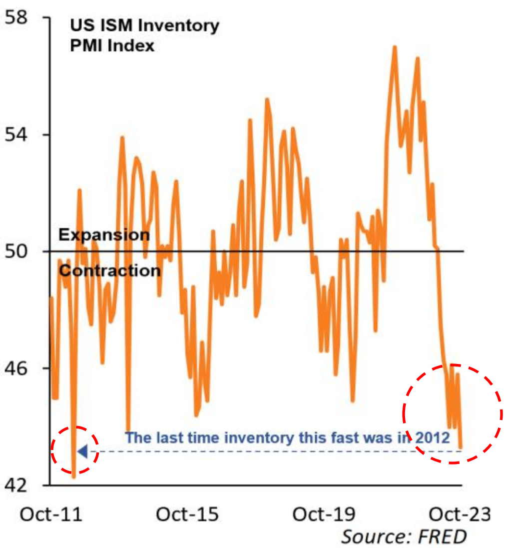
| CRITERIA | DESCRIPTION | RATING | COMPANY POLICIES |
|---|---|---|---|
| | | ENVIRONMENTAL | |
| **Product Carbon Footprint** | Carbon footprint management | **3** | The company's goal is to increase energy consumption by no more than 3% per year in line with revenue growth. |
| **Water stress** | Quality of available water | **3** | The source of drinking water for employees is clean water, tested by the Pasteur Institute in Ho Chi Minh City every 6 months. |
| **Electronic Waste** | Disposing and managing electronic waste | **3** | Recycling and collection activities are conducted at 4 DGCare after-sales service centers, and e-waste is sold to qualified and valid treatment units. |
| **AVERAGE SCORE** | | **3.0/4.0** | |

| CRITERIA | DESCRIPTION | RATING | COMPANY POLICIES |
|---|---|---|---|
| | | | **SOCIAL** |
| **Labor management** | Labor - Management relations, employee engagement | 2 | Issuing ESOP shares annually. However, DGW shows weak performance regarding employees' compensation. |
| **Human capital development** | Policies to attract, retain and develop a highly skilled workforce. | 4 | Implementing eight annual training courses for exist employees.<br>Organizing Management Trainee Program and Sales Trainee Program, attracting 1892 candidates, picking out 55 interns and promoting 15 official positions in 2022. |
| **Health and Safety** | Policies and procedures intended to ensure employees' health and safety | 1 | Limited information or evidence regarding safety training for employees. |
| **Product Safety & Quality** | Product quality management and responsible marketing | 3 | DGW commits to protecting consumers involves evaluating product quality monthly and ensuring 100% of products comply with labeling regulations. |
| **Access to Health Care** | Ability to provide good quality healthcare | 2 | Organizing annual health check-up for 100% employees. However, healthcare spending per employee has been on the down trend. |
| **Community Relations** | Company's efforts to develop a relationship with the community | 4 | Strongly contributing to the community by organizing "Digiworld Incubating Green Seeds", a social project co-operating with Rikkei Academy to sponsor 200 programmer scholarships for young people with difficult circumstances. |
| **AVERAGE SCORE** | | **2.7/4.0** | |
| | | | **CORPORATE GOVERNANCE** |
| **BOARD OF DIRECTORS** | | | |
| **Board Independence** | Independent board members | 4 | The board of directors has 2 independent members (2 out of 5). |
| | Role separation | 4 | The roles of CEO and Chairman of the Board remain separate, with Mrs Dang Kien Phuong as the CEO and Mr Doan Hong Viet as the Chair. |
| **Board Member Qualifications** | Gender diversity and educational background diversity | 4 | 2 out of 5 members of the Board are female, accounting for 40%.<br>The Board is made up of individuals from diverse fields with diverse backgrounds and years of experience. |
| **Board Member Qualifications** | Board Attendance | 3 | High attendance rate (4/5 board members attended all meetings held in 2022). |
| **Related-Party Transactions** | No materialistic related party transactions | 3 | Material transactions are announced on Corporate Governance Report semiannually<br>Fair value for transactions is objectively evaluated by external audit. |
| **Board Members Terms and Board Composition** | Election process | 3 | Article 24 DGW's charter states the detailed information about the election process during the AGM of shareholders.<br>Voting to elect members of the BOD is conducted by cumulative voting method. |
| **Board Members Terms and Board Composition** | Appropriate size of BoD | 3 | The Board has 5 members, which is in accordance with DGW's charter (at least 5 members and not more than 11 members). |
| **Board Members Terms and Board Composition** | Appropriate size of Independent Members | 3 | 40% are the independent member composition of the BOD, which is in accordance with DGW's charter (the total number of independent members of the BoD must account for at least one-third (1/3) of the total members of the BoD). |
| | | | **AUDIT COMMITTEE** |
| **Independent Audit** | The credibility of the company's financial statements | 3 | The external auditor of DGW is Ernst & Young Vietnam Limited, responsible for verifying the accuracy of the disclosures in the financial statements. |
| **Independent Audit** | Audit committee members are independent and financial experts | 4 | Mr. Nguyen Duy Tung has a bachelor's degree in Accounting and Law with years of experience in healthcare business.<br>Mr. Tran Bao Minh has a master's degree in Marketing with years of experience in marketing. |
| **Integrity of Financials** | The integrity of the financial reporting process | 3 | As stated in Article 51 DGW's charter, the external auditor appointed is legally operating in Vietnam and is approved by SEC. Financial statements are submitted to the BoD within 90 days and disclosed publicly with notes. |
| **Selection of External Auditor** | The board submits the appointment of the external auditors to a vote of shareowners | 4 | The audit committee works with the board of directors to evaluate and choose an independent auditor, with the shareholder's approval. |
| | | | **REMUNERATION COMMITTEE** |
| **Performance Metrics** | Disclosing information relating to the compensation | 3 | Compensation of five highest-paid executives is fully disclosed on the financial statements. |
| **Performance Metrics** | Communication regularly with the company's shareowners | 3 | The Board discloses in its annual report the Company's policies on compensation philosophy, approved in the AGM. |
| **Performance Metrics** | Regular attendance at Committee meetings | 3 | The Committee convenes quarterly to assess the size and structure of salaries, bonus and other benefits of each member of the BoD, BoM. |
| | | | **SHAREHOLDER RIGHTS** |
| **Election** | Voting right | 4 | 1 share - 1 vote with the same rights, obligations and interests. |
| **Shareholder rights** | Dividend policy | 4 | Maintaining a dividend payout ratio of 40:60 since listing on the stock exchange with 20% - 40% of the net profit after tax will be for cash dividends. |
| **Shareholder rights** | Information transparency | 4 | The company's materials are equally accessible to shareholders without any limitations, providing them with full access to periodic and extraordinary information published in accordance with law. |
| **AVERAGE SCORE** | | **3.4/4.0** | |
| **OVERALL SCORE** | | | **3.1/4.0 = 78/100** |

## APPENDIX 7: US CONSUMERS' OVERVIEW AND RETAILERS' ORDERING

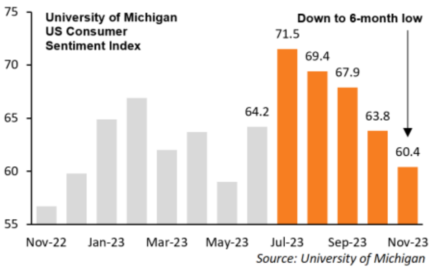
We believe US retailers will re-order to replenish inventories which is at decade-low …

**Steepest Pace of Inventory Depletion Over 10+ Years**

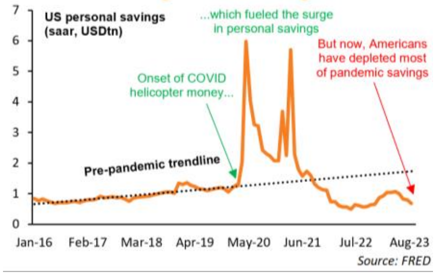



…However, the pace of re-ordering might not be promising due to signs of consumer weakening, making us believe that Vietnam 2024F GDP can only grow below 6%

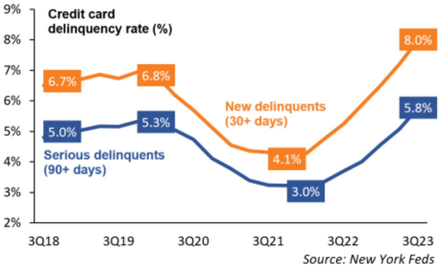
**Consumer Sentiment Is Degrading**



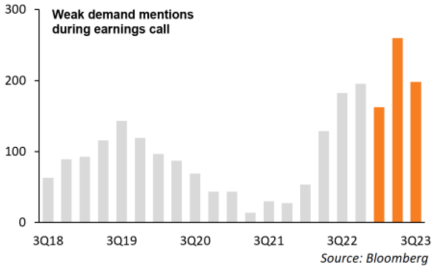

**US Personal Savings Are Exhausting**




**Credit Card Delinquency Is On The Rise**




**Demand Worries Plage US Earnings**




## APPENDIX 8: SWOT ANALYSIS

**Strengths**

- An extensive distribution network
- Efficient operation through ERP management
- Management expertise and extensive experience
- A diverse brand portfolio spanning various segments

**Weaknesses**

- A 'Chicken and Egg' dilemma: It is difficult to find a strong brand, but a strong brand wants to partner when it has a major track record
- Lack of competitive advantage in non-ICT sectors

**SWOT**

**Opportunities**

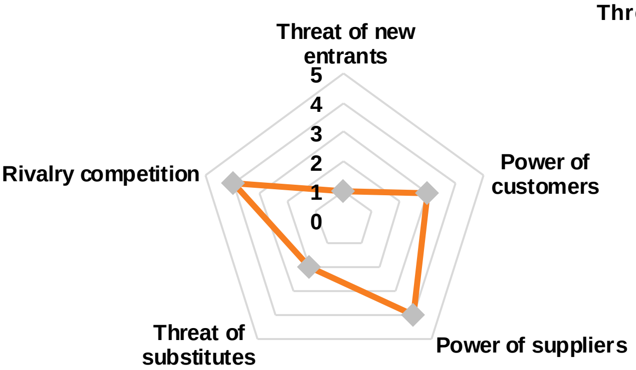
- Expanding into the mass affluent and affluent segments, which are Apple's target customers
- Low penetration rate in IoT (Internet of Things) devices
- Foreign Direct Investment (FDI) inflows from corporations, leading to a need for office and industrial equipment

**Threats**

- Price wars with retailers
- Losing contracts with major brands
- Unfavorable policies from brands

## APPENDIX 9: PORTER'S FIVE FORCES ANALYSIS

| SCORE | RATING |
|---|---|
| 0 | No threat |
| 1 | Insignificant |
| 2 | Low |
| 3 | Moderate |
| 4 | High |
| 5 | Significant |




### THREAT OF NEW ENTRANTS - INSINIFICANT

With requirements for a large-scale investment in extensive distribution system, deep partner relationships, and diverse product portfolio, entering the ICT distribution market is relatively challenging, leading to formidable barriers to entry. Furthermore, leading distributors have accumulated professional expertise and established reputable brands, which are of importance to capture and gain the market share. Therefore, we perceive the threat of new entrants as INSIGNIFICANT.

### POWER OF CUSTOMERS - MODERATE

Customers of the ICT wholesalers are primarily independent stores, reseller agents, and retail chains. Given the low switching cost, such customers partner with different wholesalers because of the requirement for wide-ranging products portfolio, and far-reaching distribution network. Moreover, with a price-competitive retail industry, distributors have to provide rebates program or trade discounts secure their market share, leading to the reductionr of profit margin. As a consequence, we consider the bargaining power of customers to be MODERATE.

### POWER OF SUPPLIERS - HIGH

Suppliers of ICT distributors are mainly ICT manufacturers, either well-established players and newly-joined participants in the market. While competitors involves only in traditional distribution, value-added MES allows DGW to get the exclusive distribution contracts for 3-5 years with emerging brands. On the other hand, popular brands with strong market presence and low switching costs are likely to partner with additional wholesalers to expand their coverage, unless they are bound by existing distribution contracts. As a result, we assess the supplier's bargaining power as MODERATE for lesser-known brands and SIGNIFICANT for well-known brands, reusulting in a HIGH rating, in average.

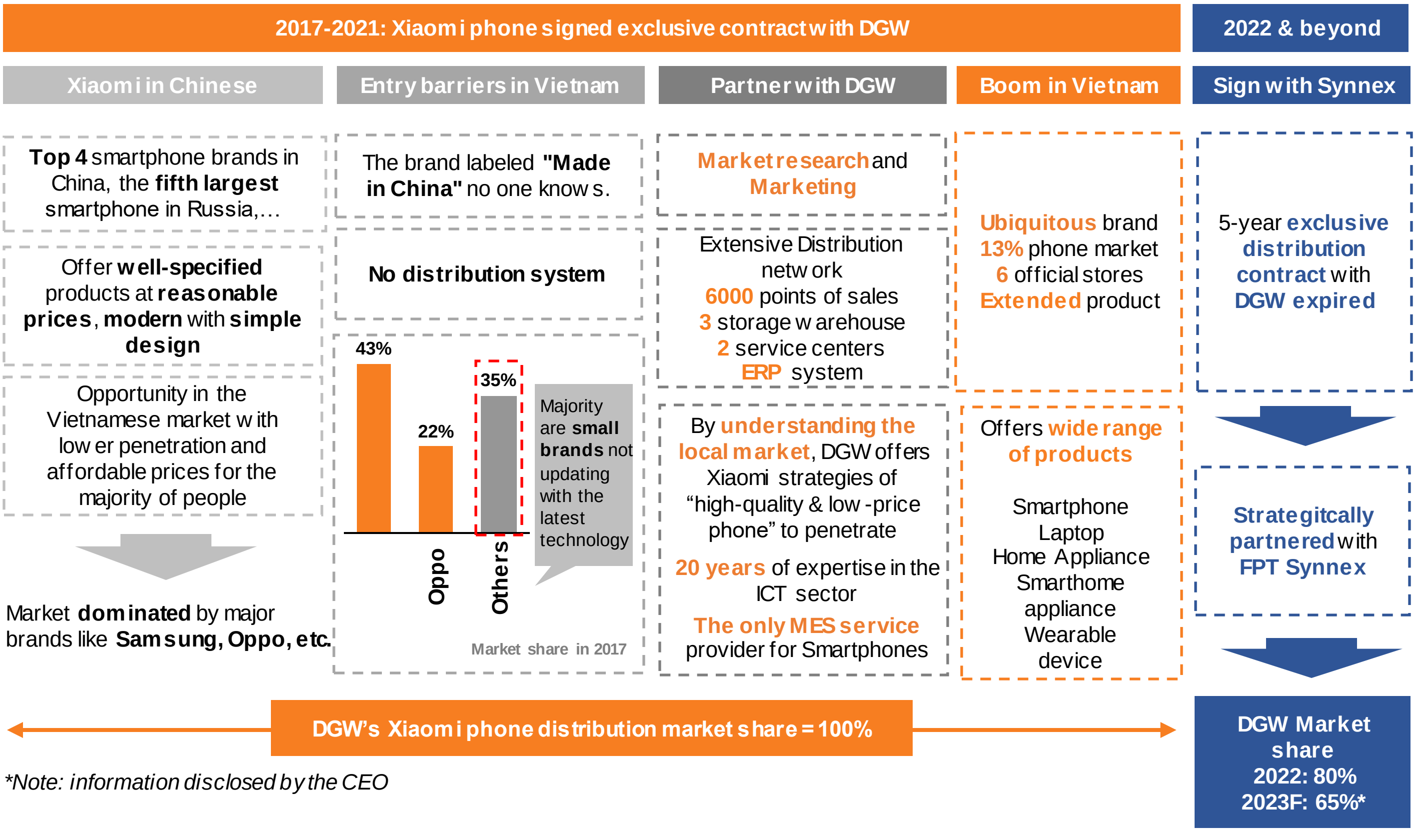
### THREAT OF SUBSTITUES - LOW

As for popular ICT products in peak seasons, retailers partially order directly from producers, instead of purchasing through intermediaries. Nevertheless, retailers still have to rely on wholesales to reduce the inventory management cost and enhance the purchasing operation flexibility. In addition, Apple has launched the Apple Store Online in Vietnam, which is for the brand promotion rather than the competition with existing retailers and distributors. Hence, we rate the threat from substitute as LOW.

### RIVALRY COMPETITION - HIGH

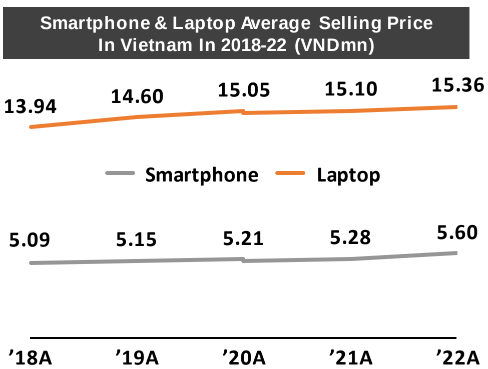
ICT distribution industry is relatively competitive, with dominant wholesalers such as DGW, PET, FPT Synnex, Viettel Commerce, etc.. Given the undifferentiated distribution system, and the homogenous service ranges, such players compete fiercely to achieve and maintain distribution contracts. However, DGW differs from its peers through its Market Expansion Service (MES), offering value-added services to attract and partner with a variety of brands. Therefore, we believe the rivalry competitive is HIGH.

## APPENDIX 10: XIAOMI CASE STUDY IN VIETNAM

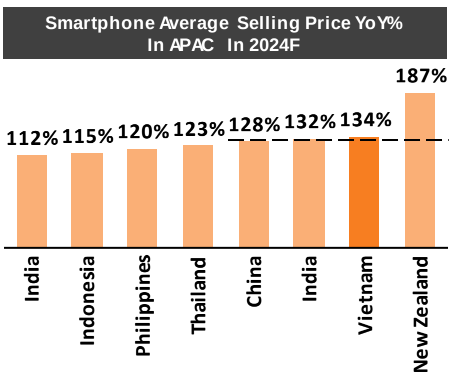



*Note: information disclosed by the CEO*

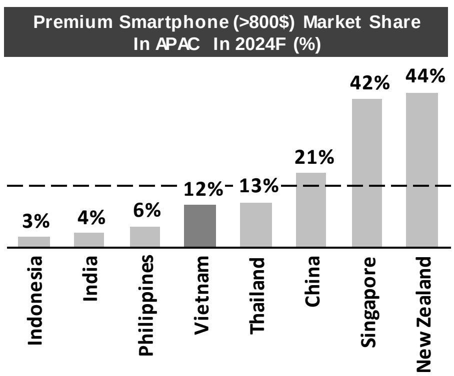
## APPENDIX 11: POTENTIAL MARKET FOR PREMIUM SMARTPHONE & LAPTOP FROM TRADE-UP




Source: Euromonitor




Source: GFK



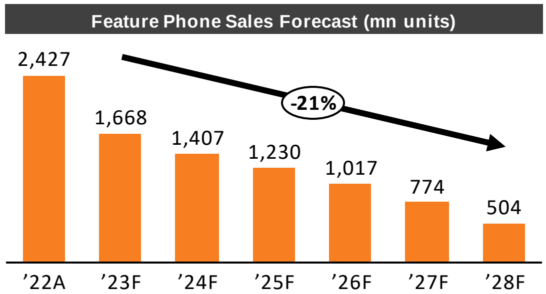

Source: GFK

## APPENDIX 12: MARKET SIZE FOR LOW-END SMARTPHONE FROM 2G TERMINATION & DGW'S NEW BRAND UNPROVEN POTENTIAL

We estimate the addressable market for DGW's newly added smartphone brands like TCL and ZTE to be around 4.0 VNDtn annually, equivalent to 2mn units with an ASP of 2 VNDmn. This estimation is based on the targeting of potential low-end consumers transitioning from 2G feature phones due to the 2G cutoff deadline in December 2024.

- In late 2022, there were 94mn smartphone subscriptions (Ministry of Information and Communication), translating to about 62.8mn smartphone users in Vietnam, indicating 1.5 subscriptions per user. Simultaneously, there were 26.1mn feature phone subscriptions. We expect an average of 3 subscriptions/user for feature phones, given their historical cheapness and popularity. Given the implied c.8.5mn feature phone users, we anticipate **the number to decrease to 7mn by late 2023**
- However, customers may not necessarily switch to smartphones, as there are many feature phones with 4G, with Nokia being the most popular. We expect **4.9mn feature phones (~1.6mn users)** to be sold over the next four years. Assuming Vietnam follows Thailand's trend of having 3% of feature phones sold after the 4-year 2G cutoff, feature phone would not be eliminated as they are suitable to workers in specialized.
- Therefore, there would be **5.4mn remaining target users**, equivalent to **8.0mn smartphones** (5.4mn users x 1.5 subscriptions/user) sold in the next four years, or **2.0mn smartphones sold annually**. Assuming an average price of 2.0 VNDmn/unit for low-end phones, this market is valued at **4.0 VNDtn**. However, the potential market size is only half of DGW's smartphone revenue in 2023, making it less impressive.

In conclusion, we assume that DGW, with ZTE, TCL can capture a 5% market share, equivalent to ~200 VNDbn. With these additions, DGW is expected to reach 250 VNDbn in revenue in FY28, contributing minorly to the total revenue.




Source: Euromonitor

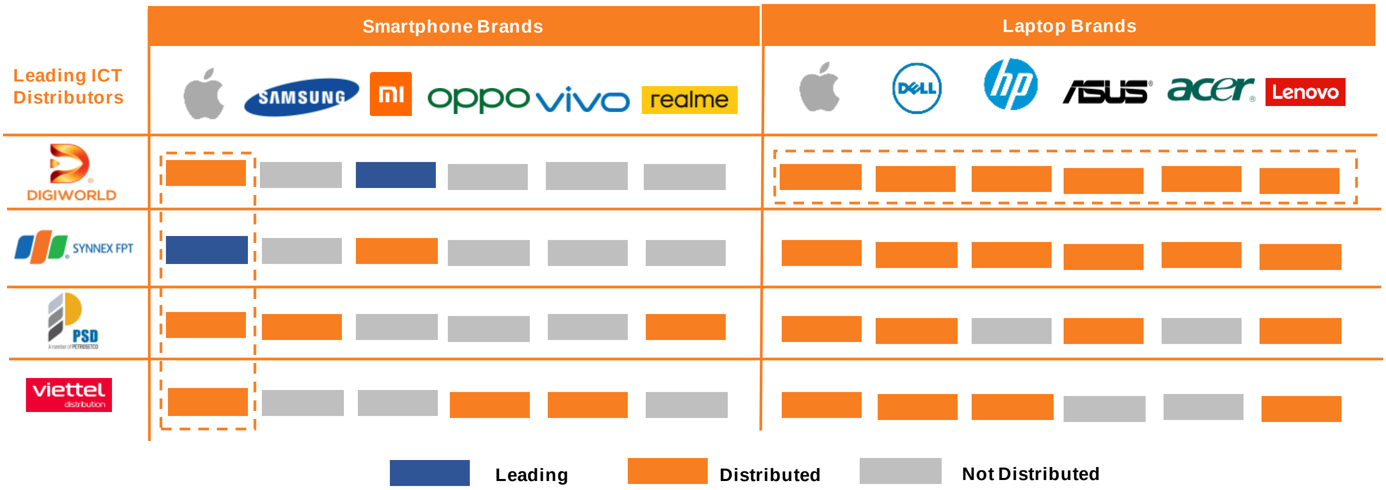
| Market shares | | Brands | Price Range Focus | | | |
|---|---|---|---|---|---|---|
| FY20 - H1.23 | H1.23 | | <200$ | 200$-400$ | 400$-600$ | >600$ |
| | 16% | Apple | | | | |
| | 18% | Oppo | | | | |
| | 30% | Samsung | | | | |
| | 8% | Vivo | | | | |
| | 19% | Xiaomi | | | | |
| | 10% | Others | | | | |

Source: Counterpoint, Euromonitor, Team compilation

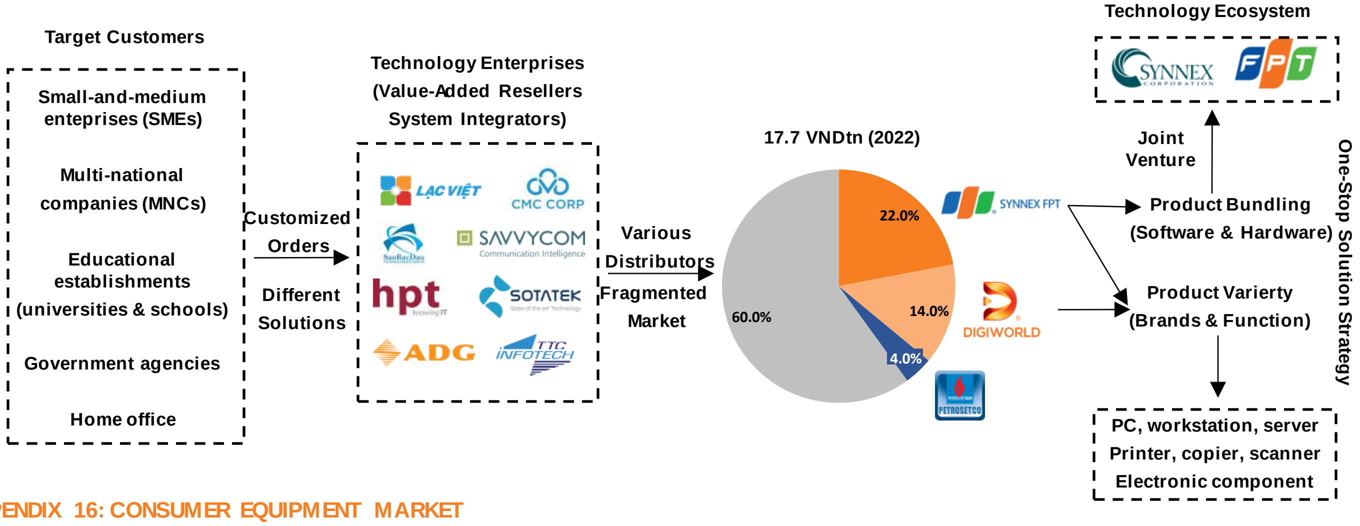
## APPENDIX 13: ICT & NON-ICT SEGMENT COMPETITIVE MATRIX

| | ICT Distribution | | | | | Segment (Except For Smartphone And Laptop) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Leading ICT distributor | MES | POS | Service Center | Storage Warehouse | OEM | Office Equipment | Home Appliance | Health care | Consumer Good | Industrial Equipment | IT Service |
| DIGIWORLD | Fully | 6000 | 5 | 5 | None | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ |
| SYNNEX FPT | Partially | 8000 | 12 | 6 | Operating | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ |
| PSD | Partially | 2000 | 3 | 4 | None | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ |
| viettel distribution | Partially | 7000 | 1 | 1 | None | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ |

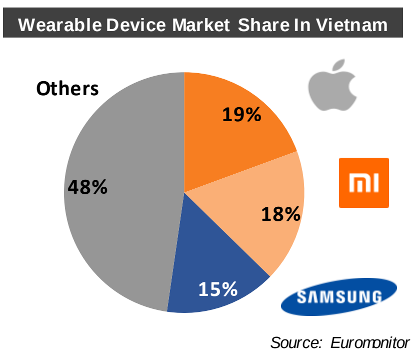
## APPENDIX 14: ICT PARTNERSHIP COMPETITIVE MATRIX

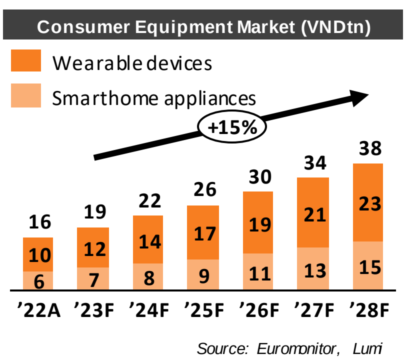


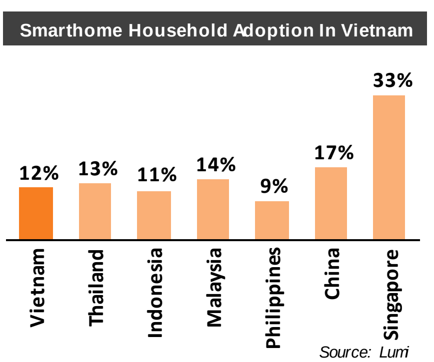

## APPENDIX 15: CORPORATE EQUIPMENT MARKET




## APPENDIX 16: CONSUMER EQUIPMENT MARKET



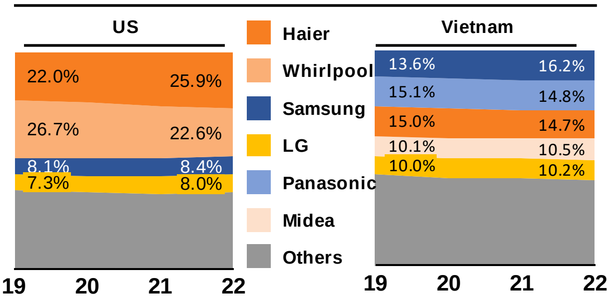



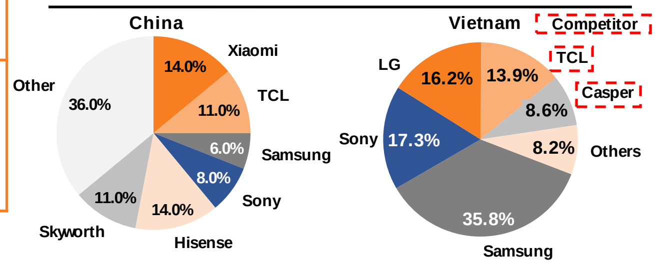
## APPENDIX 17: HOME APPLIANCE MARKET

| | Key Brands In Vietnam | DGW's Brands Distributed | DGW's Brand Competitiveness |
|---|---|---|---|
| Large Home Appliance | Panasonic, SAMSUNG, AQUA, LG | Whirlpool, mi | Whirlpool's **U.S. market share** has fallen from **26.7%** to **22.6%** in 5 years, with Samsung, Haier (Aqua in Vietnam), and LG gaining ground. |
| Small Home Appliances | Panasonic, PHILIPS, SUNHOUSE, SHARP | Westinghouse, Joyoung | **Westinghouse** and **Joyoung** are **smaller** foreign brands, facing challenges in competing with the larger and well-established brands in Vietnam. |
| Consumer Appliances | SHARP, mi | mi | The **Xiaomi** ecosystem has also been developed, including smartphones, televisions, air purifiers, and robot vacuum cleaners. |

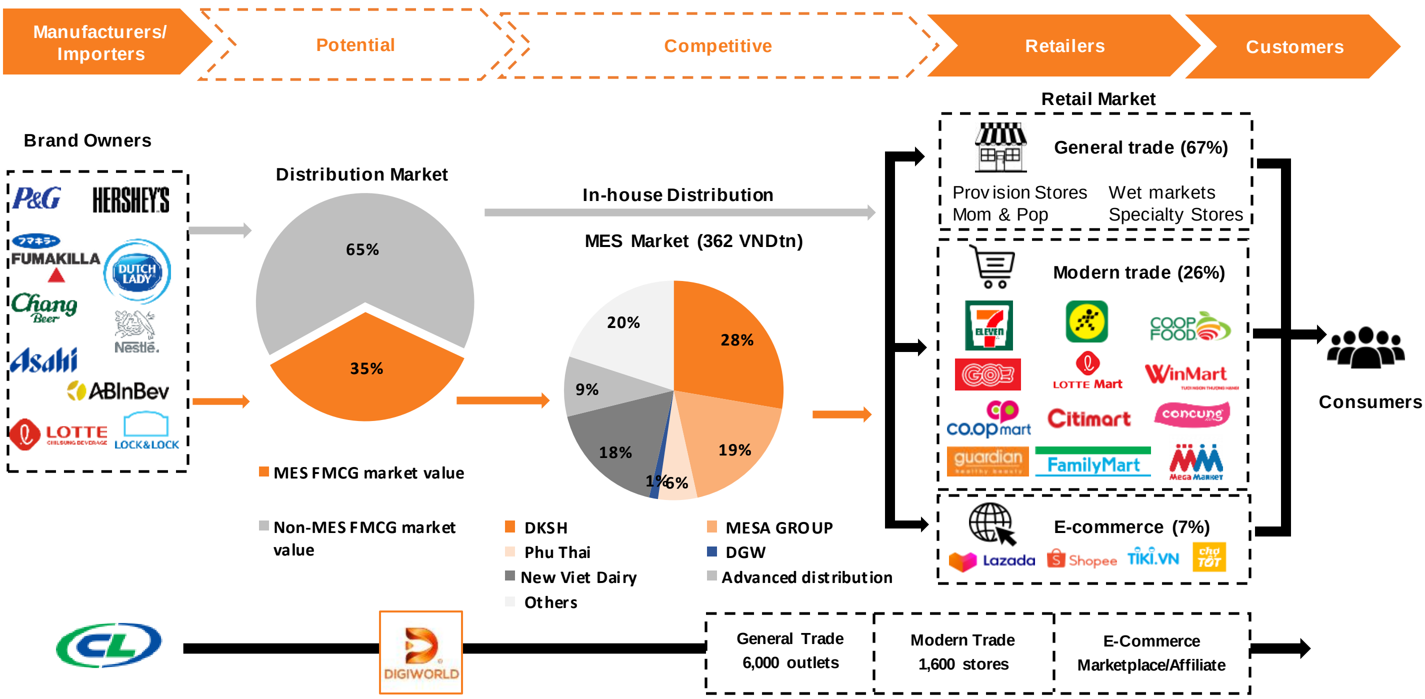
Whirlpool faces challenges entering Vietnam



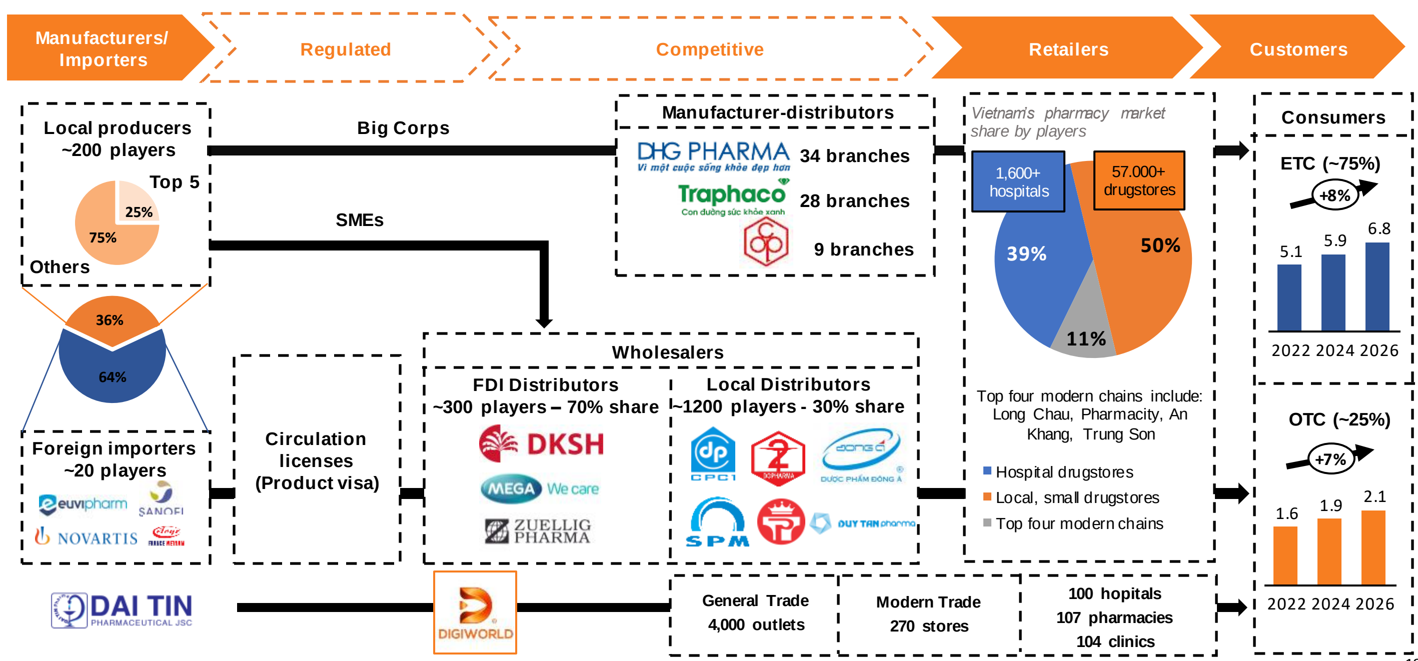

Xiaomi TV will face significant competition from existing players




## APPENDIX 18: CONSUMER GOODS DISTRIBUTION VALUE CHAIN




## APPENDIX 19: HEALTHCARE DISTRIBUTION VALUE CHAIN



## APPENDIX 20: DISCOUNTED CASHFLOW - WACC CALCULATION

**1. Cost of Equity**

**Risk-Free Rate**: Derived from the three-year average of Vietnam's 10-year government bonds, we establish a relevant risk-free rate for DGW, yielding 3.02%.

**Bottom-Up Beta:** To estimate DGW's Beta, we employ the bottom-up Beta methodology recommended by Prof. Aswath Damodaran. This approach is favored over a single regressed Beta due to its avoidance of drawbacks such as (1) high standard error and (2) reflection of the firm's portfolio mix and leverage over the regression period, rather than the current dynamic conditions.

The Bottom-Up Beta is determined through three steps:

1. We identify 15 peer companies in the retail industry, encompassing both distributors and retailers, and conduct a regression analysis on the two-year, weekly return Beta.
2. After un-leveraging these Beta values using their two-year average effective tax rate (ETR) and average debt-to-equity ratio (D/E), we arrive at the mean of un-levered Beta 0.73x.
3. Subsequently, we re-lever the Beta using DGW's current D/E ratio to attain the final Beta value of 1.16x.

**Equity Risk Premium:** The Vietnam equity risk premium, calculated as 9.57% as of July 2023 by Prof. Aswath Damodaran, is adopted as a key parameter in our analysis.

| WACC | 12.24% |
|---|---|
| **Cost of equity** | **14.14%** |
| Risk free rate | 3.02% |
| Un-levered Beta | 0.73x |
| Re-levered Beta | 1.16x |
| ERP | 9.57% |
| **After tax cost of debt** | **4.65%** |
| Pre-tax cost of debt | 5.85% |
| Effective tax rate | 20.42% |
| **Target % equity** | **80.0%** |
| **Target % debt** | **20.0%** |

*Source: Team's estimate*

**2. Pre-tax Cost of debt**

DGW relies predominantly on short-term debt to fund its working capital needs, and the pre-tax cost of debt is estimated at 5.85%. Apply this rate to the 2-year average Effective tax rate of 20.42% we achieve the After-tax cost of debt of 4.65%. The pre-tax cost of debt is derived through a combination of two approaches:

**1. Historical Average Borrowing Rate:** Assigning a 50% weight to DGW's 5-year historical average borrowing rate of 5.18%. This method, disadvantages in sensitivity to market interest rates and only reflects the past but advantages in indicating DGW's close ties with the bank to enjoy quite low rate thanks to its regular engagement in international payments and frequent unsecured debt rollovers.

**2. Synthetic Rating Methodology:** Utilizing a synthetic rating methodology, DGW's default spread is computed with reference to the Vietnam country default spread to adjust for the risk-free rate. Based on a projected FY24-FY28 interest coverage ratio of around 5x DGW is rated A2/A, resulting in a spread of 1.42%. Adding this to the 3-year average Vietnam 1-year government bond yield of 1.88% and the country default spread of 3.22% (considering that 100% of DGW's revenue is generated domestically, while Vietnam's rating is Ba2 - below investment grade by Moody's), the overall cost of debt is calculated at 6.52%. This method is assigned 50% weight.

| Broad peers | Raw Beta | D/E (%) | ETR (%) | Un-levered Beta |
|---|---|---|---|---|
| DGW VN | 1.61 | 85.21 | 21.13 | 0.96 |
| PET VN | 2.11 | 164.84 | 27.51 | 0.96 |
| MTDL IJ | 0.92 | 5.59 | 23.27 | 0.88 |
| VST MK | 0.75 | 2.91 | 24.73 | 0.73 |
| SIS TB | 1.21 | 110.37 | 19.83 | 0.64 |
| SYNEX TB | 1.34 | 119 | 21.18 | 0.69 |
| COM7 TB | 1.24 | 112.43 | 16.57 | 0.64 |
| SYRMA IN | 1.1 | 24.29 | 28.31 | 0.94 |
| 000851 CH | 1.11 | 48.06 | 0.25 | 0.75 |
| 000034 CH | 1.32 | 236.69 | 21.51 | 0.46 |
| 002598 CH | 1.42 | 34.52 | 9.41 | 1.08 |
| PSD VN | 1.2 | 210.19 | 26.58 | 0.47 |
| TIE VN | 1.37 | 0 | 0.2 | 1.37 |
| 300397 CH | 0.87 | 14.85 | 0.15 | 0.76 |
| INGRM TI | 0.42 | 121.89 | 84.91 | 0.35 |
| DCXINDIA | 1.77 | 244.35 | 14.95 | 0.58 |
| ERAA IJ | 0.51 | 67.89 | 33.9 | 0.35 |
| **MEAN** | | | | **0.73** |
| **DGW VN** | **Current D/E** | **76.49** | **21.13** | **1.16** |

*Source: Bloomberg, Team's estimate*

| Final pre-tax cost of debt | 5.85% |
|---|---|
| 5Y Avg.Shorterm borrowing rate (50%) | 5.18% |
| Synthetic rating - Damodaran (50%) | 6.52% |
| *Vietnam 1 year government bond* | *1.88%* |
| *FY24-FY28 interest coverage* | *~5.0* |
| *Credit rating* | *A2/A* |
| *Company default spread* | *1.42%* |
| *Country default spread* | *3.22%* |
| **Implied pre-tax cost of debt** | **6.52%** |

*Source: Damodaran, Team's estimate*

| > | ≤ to | Rating is | Spread is |
|---|---|---|---|
| | 0.2 | D2/D | 20.00% |
| 0.2 | 0.6 | C2/C | 17.50% |
| 0.7 | 0.8 | Ca2/CC | 15.78% |
| 0.8 | 1.2 | Caa/CCC | 11.57% |
| 1.3 | 1.5 | B3/B- | 7.37% |
| 1.5 | 1.7 | B2/B | 5.26% |
| 1.8 | 2.0 | B1/B+ | 4.55% |
| 2.0 | 2.2 | Ba2/BB | 3.13% |
| 2.3 | 2.5 | Ba1/BB+ | 2.42% |
| 2.5 | 3.0 | Baa2/BBB | 2.00% |
| 3.0 | 4.2 | A3/A- | 1.62% |
| 4.3 | 5.5 | A2/A | 1.42% |
| 5.5 | 6.5 | A1/A+ | 1.23% |
| 6.5 | 8.5 | Aa2/AA | 0.85% |
| 8.5 | | Aaa/AAA | 0.69% |

*Source: Damodaran, Moody, Team's estimate*

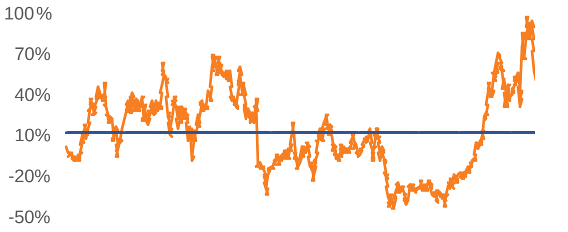
## APPENDIX 21: RELATIVE VALUATION: PEERS SELECTION – HISTORICAL TRADING PREMIUM & DISCOUNT

**Peer selection:** Peer selection: Peers set consisted of ICT distributors taking consideration on revenue size to capture DGW's fair price. In Vietnam Petrosetco is the only peer and is selected instead of its ICT distribution - focus subsidiary PSD since (1) PSD's revenue size is just more than half of DGW's, (2) PET also possess about 80% revenue from ICT distribution and (3) PET is in line with DGW's horizontal diversification strategy. For regional peers, we emphasized on selecting distribution–focused only and industry leader companies.

| Peers | Mkt Cap (mil usd) | Revenue (mil usd) | ROE TTM (%) | ROE 3Y (%) | NPAT CAGR (FY18-22) | 3Y Avg. TTM P/E |
|---|---|---|---|---|---|---|
| PET VN | 91 | 745 | 3.7% | 9.0% | 6.5% | 16.0x |
| MTDL IJ | 390 | 1375 | 18.9% | 18.7% | 18.3% | 13.3x |
| VST MK | 99 | 600 | 15.0% | 15.1% | 17.8% | 8.7x |
| SYNEX TB | 219 | 1055 | 16.2% | 20.5% | 15.5% | 20.7x |
| SIS TB | 183 | 785 | 18.4% | 23.7% | 18.3% | 14.0x |
| **DGW VN** | **286** | **756** | **17.3%** | **32.5%** | **58.1%** | **15.0x** |
| | | | | | | |
| **High** | 390 | 1375 | 18.9% | 23.7% | 18.3% | 20.7x |
| **Q3** | 219 | 1055 | 18.4% | 20.5% | 18.3% | 16.0x |
| **Mean** | **196** | **912** | **14.5%** | **17.4%** | **15.3%** | **14.5x** |
| **Median** | **183** | **785** | **16.2.%** | **18.7%** | **17.8%** | **14.0x** |
| **Q1** | 99 | 745 | 15.0% | 15.1% | 15.5% | 13.3x |
| **Low** | 91 | 600 | 3.7% | 9.0% | 6.5% | 8.7x |

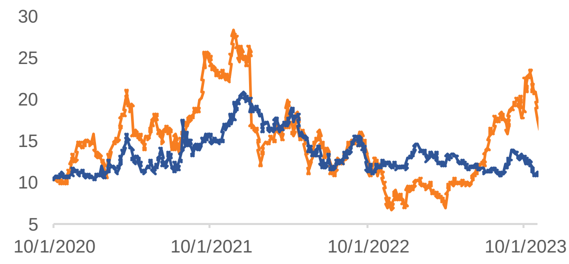
**As of 1.11.2023, Revenue & Gross margin is TTM* *Source: Bloomberg, Team's estimate*

**DGW's 3Y Trading Premium & Average (12%)**




*Source: Bloomberg*

**DGW & Peers' 3Y P/E TTM**




*Source: Bloomber*

## APPENDIX 22: DISCOUNTED CASH FLOW - FCFF

| Valuation | 2018A | 2019A | 2020A | 2021A | 2022A | 2023E | Q4.2023E | 2024E | 2025E | 2026E | 2027E | 2028E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FCFF | (111) | 342 | 869 | 246 | (1,107) | 994 | 211 | 558 | 504 | 690 | 871 | 1,089 |
| % yoy | 0 | -407% | 154% | -72% | -550% | -190% | | -40% | -10% | 37% | 26% | 25% |
| PV of FCFF | (111) | 342 | 869 | 246 | (1,107) | 965 | 205 | 483 | 389 | 474 | 533 | 594 |

(t = 0 at Q3.2023 ended)

| | | |
|---|---|---|
| **Enterprise value** | 9,861 | |
| **EV contribution by Stage** | | |
| Forecast period | 2,678 | 27% |
| Stage 29E - 33E / g=5% | 2,442 | 25% |
| Terminal period / g=3% | 4,741 | 48% |

| | |
|---|---|
| **WACC** | 12.24% |
| **Enterprise value (bil vnd)** | 9,861 |
| Less: Net debt & MI | 471 |
| **Equity intrinsic value (bil vnd)** | 9,390 |
| No. of O/S shares (mn) - 1.11.2023 | 167 |
| Fair value per share (VNDk) | 56.2 |
| Current Price (k) | 51.5 |
| **Upside (%)** | 9.1% |

*Source: Team's estimates & analysis*

## APPENDIX 23: GROSS PROFIT MARGIN ESTIMATION BY SEGMENT

Determination of gross profit margin for each of revenue segment (phones, laptops, office equipment, home appliances, and consumer goods) plays critical role on better evaluating DGW's growth drivers and financial performance attribution, as well as serving as numerical inputs for valuation model. However, due to the limited accessibility to the Company's actual data of profit margin breakdown by segments, our team deployed following Simultaneous Linear Equations deriving from revenue and gross profit over FY18–FY22 to estimate the unknowns, of which:

**(1) Defined variables:** Five unknown variables (x,y,z,m,n) including the GM (as of the base year FY18) of phones, laptops, office equipment, home appliances, and consumers goods, respectively. For each of the next four years, based solely on market conditions and business performance reported by management, we added appropriate premium/discount adjustments (0.5–1.5%) to represent that year's gross profit margin in relation to the original base year variables.

Assumption for premium and discount adjustment:

- **Phone and Laptop:** GM maintained stable in FY18-FY20, yet rose in FY21-FY22 due to (i) Global chip shortage and supply chain disruption resulted in shrinkage of smartphone supply globally, triggering even higher price under high demand in quarantine period.

| Gross margin (%) | 18A | 19A | 20A | 21A | 22A | Root |
|---|---|---|---|---|---|---|
| Smartphone | x | x | x | x+0.5% | x+0.5% | **5.8%** |
| Laptop | y | y | y | y+1% | y+0.5% | **6.8%** |
| Office Equipment | z | z+0.1% | z+0.2% | z+0.3% | z+0.4% | **7.8%** |
| Home Appliance | m | m | m | m | m+1% | **8.8%** |
| Consumer-Health | n | n+1% | n+2% | n+3% | n+4% | **11%** |
| **Total (Actual)** | **6.2%** | **6.5%** | **6.4%** | **7.2%** | **7.5%** | |

  (ii) Distributors' higher gross margin was driven by surging selling prices and lower warehousing costs that outweighed increase in purchasing prices and transportation costs (Counterpoint).
- **Other segments:** The increase in GPM of non-ICT segments are due to the additions of new brands. As a reminder, once DGW provides MES for them, they will allow DGW to enjoy higher GPM via supplier rebates

**(2) The linear equation for each year is demonstrated as follows:**
The Company's total gross profit reported that year = (Rev of phones)*(GM of phones that year) + (Rev of laptops)*(GM of laptops that year) + (Rev of OE)*(GM of OE that year) + (Rev of HA)*(GM of HA that year) + (Rev of CG)*(GM of CG that year)
**(3) Set up criterions and constraining conditions** to ensure reliability of the results, including: (i) In general, gross margin ascend following the order of Phone, Laptop, OE, HA, and CG (per the management). (ii) Phone GM would be no less than 4.5% (refer to regional peers and PET), Laptop GM is around 5%-7% (refer to DGW's historical GM when DGW distributed mostly laptop before 2018), and Consumer goods GM is no less than 10% (as per then management) but less than 30% (typical GM from FMCG products).
**(4) Solve the Simultaneous Equations** using Excel Solver, if there is no roots, resets set the assumed premium / discount or minimizing the error until finding the best output fit the constraints. The root with best match premium / discount are shown in the table above.

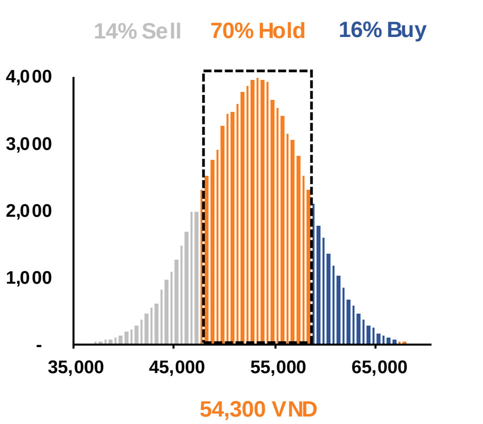
## APPENDIX 24: SENSITIVITY ANALYSIS & MONTE CARLO SIMULATIONS

**Average 2024-28 Distribution Market Share Sensitivity Analysis**

| DGW's iPhone Dist. Mark. Share \ DGW's Xiaomi Dist. Market Share | 51.0% | 54.0% | 57.0% | 60.0% | 63.0% |
|---|---|---|---|---|---|
| 11.1% | 42.2 | 44.6 | 46.9 | 49.2 | 51.4 |
| 12.0% | 44.8 | 47.2 | 49.5 | 51.8 | 54.0 |
| 13.0% | 47.3 | 49.7 | 52.0 | 54.3 | 56.6 |
| 14.0% | 49.7 | 52.1 | 54.5 | 56.7 | 59.0 |
| 15.0% | 52.0 | 54.5 | 56.8 | 59.1 | 61.3 |

*Source: Team's estimates & analysis*

**Monte Carlo Simulation**




*Source: Team's estimates & analysis*

**A sensitivity analysis** was conducted on the DGW's market share for Xiaomi and Apple to assess how variations in key valuation assumptions influence the overall valuation of DGW, given that DGW's potential largely depends on the market share of its key brands among the simulated factor in the Monte Carlo Simulation. Our analysis indicates that 70% of the outcomes fall within our HOLD range, 14% within SELL and 16% within BUY. Noteworthy, a better than expectation of DGW's market share would alter our recommendation to BUY.
**A Monte Carlo analysis** incorporating 100,000 iterations was executed to model the sensitivity of 6 key variables DGW's Xiaomi market share, Apple, market share, laptop market share, tablet market share, office equipment CAGR, and non-ICT CAGR to quantify the potential impact of these assumption changes on the 1-year target price trajectory. Notably, 70% of the simulations recommended a HOLD position, with valuation estimates spanning from 49,000 VND to 59,000 VND.

| Summary Statistics | | Percentile | Share Price |
|---|---|---|---|
| **Mean** | 52.867 | **10%** | 46.312 |
| **Median** | 52.927 | **20%** | 48.596 |
| **Standard Deviation** | 5.058 | **30%** | 50.228 |
| **Variance** | 25.581 | **40%** | 51.637 |
| **Skewness** | -0.0528 | **50%** | 52.927 |
| **Kurtosis** | 2.96 | **60%** | 54.212 |
| **Minimum** | 32.292 | **70%** | 55.575 |
| **Maximum** | 83.631 | **80%** | 57.160 |
| **Mean Std. Error** | 0.016 | **90%** | 59.312 |

*Source: Team's estimates & analysis*

| Variable | Distri. | Mean | Std. Dev. | Mode | Minimum | Maximum |
|---|---|---|---|---|---|---|
| Apple share | Normal | 13% | 1% | | | |
| Xiaomi share | Triangular | | | 60% | 40% | 66% |
| Laptop share | Normal | 40% | 2% | | | |
| Tablet share | Triangular | | | 14% | 13% | 17% |
| OE growth | Normal | 18% | 5% | | | |
| Non-ICT CAGR | Normal | 26% | 3% | | | |

*Source: Team's estimates & analysis*