

TOPIC -

**“SHORT - SIGNIFICANCE OF KAYPROS
OF 1980’S**

**IN EVOLUTION & REVOLUTION OF
PORTABLE PERSONAL COMPUTERS
[PPC’S] “**

**SCIENCE, TECHNOLOGY & SOCIETY
{ “STS” }**

**BY
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**FOR PRESENTATION AT THE 33RD 2008
TRENTON COMPUTER FESTIVAL**

**AS SPEAKER & FULL PAPER IN TCF
DIGEST CD OF PROCEEDINGS**

APRIL 26 – 27, 2008

THE COLLEGE OF NEW JERSEY

EWING, NJ

**THANK YOU FOR OPPORTUNITY TO
PRESENT THIS TALK & PAPER**

**ALLEN KATZ, ORGANIZER
SPEAKER PROGRAM**

**SOL LIBES, EDITOR FOR PAPERS
FOR THE TCF CD OF THE
PROCEEDINGS**

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ABSTRACT CORRECTION

Please note that there are **some errors** in the abstract printed and online of the TCF program with respect to this presentation. These errors are **corrected** in the Abstract on the TCF Digest CD.

This is **my fault** in submitting the original abstract and I apologize for any inconvenience it may have caused.

As far as I could determine, Osborne was **not** involved with Kaypro in making their computers. **Nor** was he was employed by Kaypro. He did leave the Osborne Computer Company [OCC] **before** it filed for bankruptcy.

However, in discovering these errors, it alerted me to be sensitive to any references about Osborne and Kaypro.

Indeed, there is a reference I found that Osborne was working on a deal with Kaypro to sell software through his book publishing efforts!

Very simply, there was a court case with a software developer over such types of sales and he had to stop this activity in general. This is further explained and referenced later in this paper.

- * Osborne's book on **hypergrowth** tells his side of the bankruptcy of the Osborne Computer Company.
- * It has many specific details involving the financial details on the bankruptcy. **Much to ponder here!!!**
- * The book does intimate that although they were intense competitors, Osborne had a high regard for Kaypro.

- * **NOTE – KAYPRO FILED FOR BANKRUPTCY IN 1990 & ASSETS SOLD IN 1995 [ABOUT 10¢ / \$1].**

CORRECTED ABSTRACT

“It is difficult to know where you are going, unless you know where you have been.”

In the **early 1980's**, only **”3”** portable personal computers [**PPCs**] existed: The **Kaypro** & **Osborne** using the **CP/M** operating system [the first true portable] & the **Compaq** using **PC/MS-DOS** [the first MS-DOS portable].

Many of the **Kaypro's** innovations & features (“**Compleat**” {Complete} computer, affordable price, bundled home & business software, suitcase style, rugged construction, detachable keyboard, etc.) established some of the **standards** for PPCs.

But long term business success depends on more than a good product by an established customer oriented electronic company.

Regrettably, Kaypro filed for bankruptcy in 1990, a little more than 7 years from its start.

Osborne bankruptcy filing was only about 3 years after they began in 1983.

Compaq continued on with an incredible long term record of successes!

Why?

* **USUAL DISCLAIMERS / CAVEATS / LIMITATIONS, ETC.** - PLEASE SEE FULL

PAPER FOR SPECIFIC DETAILS

* NATURALLY, IN OUR SO LITIGIOUS SOCIETY TODAY, THERE CAN BE **NO LIABILITY FOR ME IN ANY WAY & IN ANY FORM** WITH RESPECT TO THIS TALK & PAPER. IT IS PRESENTED IN “GOOD FAITH” & “AS IS.” IT IS BASED ON THE BEST INFORMATION AVAILABLE TO ME AT THE TIME.

* IF YOU MAKE USE OF THIS PAPER, THEN YOU ARE AGREEING IN FULL TO THESE CONDITIONS OF USE.

I WOULD LIKE TO SHARE
WITH YOU

A VERY BRIEF,
IMPORTANT EXTRAORDINARY
ERA IN MODERN COMPUTING
HISTORY I DISCOVERED

AN INCREDIBLE ADVENTURE

FASCINATING MANY “WHAT IFS”

AUDIENCE ANALYSIS

SOME QUESTIONS FOR “YOU”

PLEASE SHOW HANDS –
HOW MANY PEOPLE –

NOW OWN A KAYPRO?

DID OWN A KAYPRO?

KNOW OF KAYPROS?

OSBORNE

COMPAQ OF 1980'S

INTRODUCTION

WHY I WROTE THIS PAPER

& GAVE THIS TALK

FOR 2008 TCF

VERY SIMPLY

COULD NOT FIND THIS INFORMATION EASILY

**PART OF MY DECADES OF SCIENCE,
TECHNOLOGY & SOCIETY [STS]
RESEARCH**

**PART OF OUR RETIREMENT “DOWNSIZING
OF A LOT OF THE “STUFF” WE HAVE
ACCUMULATED – OUR 6 WORKING
KAYPRO “8” ‘S + EXTENSIVE
SUPPORTING ITEMS “MUST GO” [EBAY]
WHILE WE STILL CAN DO IT!**

SOME INITIAL POINTS –

[MORE SPECIFIC DETAILS DEVELOPED IN FULL PAPER

SIMPLIFICATION – JUST 1980'S PPC'S

[PORTABLE, PERSONAL COMPUTERS]

COMPATIBILITY – DIVERSE AUDIENCES

MOUNTAINTOPS – MAIN POINTS

PERSPECTIVE & CONTEXT – 1980'S

“YOUR” CHALLENGE – WHAT WILL

“YOU” SAY – 25 YEARS FROM NOW OR 3

– 5 YEARS!

ATTRACTION OF COMPUTERS

* PLEASE CONSULT THE FULL PAPER
IN THE 2008 TCF CD DIGEST FOR MORE
SPECIFIC DETAILS

* THIS **1 HOUR** TALK CAN ONLY VERY
BRIEFLY SUMMARIZE MANY OF THE
MAIN ASPECTS OF THE FULL **100 +**
PAGE PAPER INCLUDING NUMEROUS
REFERENCES

* THIS IS MY INTERPRETATION OF THE
DATA BASED ON MY APPROACH

* PLEASE DO YOUR OWN RESEARCH &
SHARE YOUR RESULTS WITH US.
THANKS!

SPECIFIC PERSPECTIVE / CONTEXT

1982, TIME MAGAZINE DECLARED
“**THE COMPUTER**” THEIR “MAN OF THE
YEAR FOR 1981”!

IN FEBRUARY 1982, **STEVE JOBS**,
CHAIRMAN OF APPLE SINCE 1981,
APPEARS ON THE COVER OF TIME
MAGAZINE

**BY THE END OF THE 1990'S,
MORE PC'S WERE BEING
SOLD WORLDWIDE THAN
CARS OR TV'S!**

**ONLY 20 YEARS AFTER PPC'S
BEGAN IN EARLY 1980'S!**

EARLY 1980 COMPUTER OPTIONS

Mainframes

Desktops for offices

“Kits” to build your own for hobbyists

A wide variety of very diverse systems

- all **trying to be “real”** computers as we know them today

Special cases – initial Apple, IBM & Radio

Shack systems – **NOT REALLY PPC'S**

NOTE –

* WE HAVE TO DEFINE “PPC’S” VERY SPECIFICALLY SO WE CAN PROGRESS PRODUCTIVELY & **STAY FOCUSED**

* THERE WERE MANY “COMPUTERS” AVAILABLE IN MANY DIFFERENT FORMS

• SOME DID NOT INCLUDE

[ONLY AS OPTIONS IF AT ALL]

KEYBOARD

MONITOR

DATA STORAGE ON DISKS [NOT TAPE]

COMMONLY NEEDED SOFTWARE

COMMUNICATION OPTION

“REAL PORTABILITY” - ETC.

**THIS SEEMS INCOMPREHENSIBLE
& FOREIGN TO US TODAY IN
COMPUTING**

**BUT THEN – IN THE EARLY 1980'S
STANDARDS WERE JUST BEGINNING**

**PPC'S SET MANY OF THESE
STANDARDS THAT WE JUST TAKE
FOR GRANTED TODAY**

FIRST PERSONAL COMPUTER [PC]

ORIGINAL IBM PC {"PERSONAL COMPUTER"}
MODEL 5150 OF 1981

ACTUALLY A DESKTOP & NOT PORTABLE,

HOWEVER IT REVOLUTIONIZED
COMPUTING AND SET MANY OF THE
STANDARDS FOR PPC'S.

Enter the “Portable” Personal Computer [PPC] In the Early 1980’s

THESE WERE NOT LAPTOP COMPUTERS!

THEY WERE **VERY LARGE** – SUITCASE SIZE &
VERY HEAVY [20 – 30 POUNDS], HARDLY
SOMETHING YOU WOULD PUT ON YOUR LAP
TO USE.

**SELF CONTAINED “COMPLEAT”
[KAYPRO’S TERM] / COMPLETE SYSTEMS**

**ABLE TO DO ALMOST ALL SMALL BUSINESS
& HOME USERS WOULD WANT TO DO.**

**A NEW REVELATION FOR PAST COMPUTER
USERS.**

**PREVIOUSLY NO REALISTIC “COMPLEAT /
COMPLETE” COMPUTER SYSTEMS FOR
EVERYDAY USERS.**

**INCREDIBLE INSIGHT & GENIUS INTO
HUMAN NEEDS & WANTS**

BY ADAM OSBORNE

**TO DESIGN & PRODUCE FIRST TRUE
“PORTABLE” COMPUTER**

VERY SIGNIFICANT ACHIEVEMENT

WHY DID OTHERS NOT SEE THIS EARLIER?

PORTABLE – NOT LAPTOPS, BUT SUITCASE
LIKE - REALISTICALLY & RELATIVELY EASILY
TAKEN ON THE ROAD & USED AT WIDE
VARIETY OF LOCATIONS, NOT JUST IN
OFFICE OR AT HOME – **DESIGNED TO FIT
UNDER AIRPLANE SEATS FOR AIR TRAVEL!**

PERSONAL – GENERALLY **AFFORDABLE** FOR
SMALL BUSINESS & HOME USERS.

TRUE COMPUTERS

NOT JUST CALCULATORS

COULD DO MOST BASIC COMMON COMPUTER TASKS –

**WORD PROCESSING,
SPREADSHEETS,
DATABASE MANAGEMENT,
COMPUTER PROGRAMMING,
NETWORKING THRU A MODEM, ETC**

SELF CONTAINED – INCLUDED

**MONITOR,
KEYBOARD,
STORAGE DEVICE – DISK DRIVE,
SOFTWARE, ETC.**

TRULY “COMPLETELY COMPLETE” SYSTEMS

READY TO USE “RIGHT OUT OF THE BOX!”

**A SURPRISING “TOTAL NEW DEVELOPMENT”
FOR COMPUTING COMMUNITY**

**QUICKLY EMBRACED ENTHUSIASTICALLY
DESPITE THEIR MANY “GROWING PAINS!”**

“SPECIAL EXCITEMENT IN THE AIR”

MANY BECAME DEVOTED TO THEM.

3 FIRST MAIN “PPC” PLAYERS

OSBORNE, KAYPRO & COMPAQ

“THE CAST OF CHARACTERS”

TO PLAY THEIR PARTS
ON THE “PPC” STAGE

OSBORNE 1 - FIRST "PPC" IN 1981

INITIALLY BUILT IN EAST COAST NJ PLANT

**NEW COMPANY FOUNDED BY ADAM
OSBORNE**

**WELL KNOWN TECHNICAL WRITER OF
VERY UNDERSTANDABLE COMPUTER BOOKS**

**SAW THE NEED AHEAD OF MANY OTHERS
& PRODUCED A COMPUTER TO ADMIRABLY
FILL THIS NEED.**

KAYPRO II - SECOND IN 1982

BUILT IN WEST COAST PLANT IN CA

BY A LONG ESTABLISHED INTERNATIONAL
ELECTRONIC MANUFACTURING
COMPANY - **NON-LINEAR SYSTEMS**

FOUNDED BY ANDY KAY [NOT "ALAN" KAY].

COMPAQ PORTABLE - THIRD IN 1983

BUILT IN TEXAS PLANT

**NEW COMPANY FOUNDED BY ROD CANION,
JIM HARRIS & BILL MURTO**

**FORMER SENIOR TEXAS INSTRUMENTS
MANAGERS**

INVESTED \$1000 [\$2400** IN TODAY'S
DOLLARS] TO FORM COMPAQ**

NAME DERIVED FROM -
COMPATIBLE AND QUALITY
COMPAQ

MY THOUGHTS -

COMPAQ WAS COMPACTQ
{A COMPACTQ COMPUTER}

[BUT FOUND **NO** REFERENCE
TO SUCH A WORD CONNECTION]

**NOTE - IBM DID NOT COME OUT WITH A
“REAL PPC” UNTIL 1984**

**CALLED SOME EARLIER COMPUTERS
“PORTABLE” {?} TO DISTINGUISH THEM
FROM LARGE STATIONARY MAINFRAMES**

**THESE “PORTABLES” {?} WERE REALLY
MORE LIKE DESKTOPS – BIG / HEAVY
– NOT EASILY MOVED**

THEY WERE ALSO VERY EXPENSIVE!

**EARLY “PORTABLE” {?} IBM COMPUTERS –
REALLY *DESKTOPS* – SINCE NOT MAINFRAMES**

1975 IBM 5100 = \$19,975 {\$78,883}

1978 IBM 5110 = \$10,225 {\$32,847}

1981 IBM 5150 DESKTOP PC = \$3,000 {\$7,077}

1981 OSBORNE 1 PPC = \$1,795 {\$4,235}

1982 KAYPRO II PPC = \$1,795 {\$4,235}

1983 COMPAQ PORTABLE PPC = \$3,590 {\$7,678}

1984 IBM 5155 PPC = \$4,225 {\$9,718}

{NOTE – RED COSTS ARE IN TODAY’S DOLLARS}

OBVIOUSLY YOU CAN EASILY SEE
HOW THE “PRICE BREAKS” WERE DESIGNED

1981 OSBORNE & 1982 KAYPRO PPC'S
THE SAME & 40% LESS THAN 1981
IBM DESKTOP PC

1983 COMPAQ PPC 8% MORE THAN
IBM DESKTOP PC & 81% MORE THAN
OSBORNE & KAYPRO PPC'S

1984 IBM PPC 26% MORE THAN COMPAQ PPC

OBVIOUSLY

**TECHNICAL SPECIFICATIONS FOR EACH
COMPUTER WERE ALSO OF INTEREST**

**IN GENERAL – LATER COMPUTERS HAD
BETTER TECHNICAL SPECIFICATIONS**

**A LATER TABLE IN THIS TALK & TABLE # 3
IN THE FULL PAPER DELINEATE SOME
OF THESE DETAILED SPECIFICS**

**OSBORNE & KAYPRO WERE CP/M
OPERATING SYSTEMS**

**COMPAQ WAS IBM COMPATIBLE USING
PC-DOS / MS-DOS BY MICROSOFT, LIKE IBM**

**BUT THEIR OWN BIOS, NOT IBM'S BIOS,
SO THERE WOULD BE NO PATENT
INFRINGEMENTS.**

**DECISION BETWEEN CP / M &
PC-DOS / MS-DOS NOT AS
SIMPLE AS MAY FIRST APPEAR**

**BUT A PIVOTAL DECISION FOR
ULTIMATE SUCCESS / FAILURE**

**ALSO GOOD REFERENCE –
“ACCIDENTAL EMPIRES”
BY ROBERT X. CRINGELY**

SPECIFICS - SPECIFICATIONS

COMPARISONS – CONTRASTS

*****SYSTEMS*****

“HARDWARE - COMPUTERS”

“SOFTWARE – BUNDLES”

ALL THREE PPC'S SHARED SAME
GENERAL HARDWARE
CHARACTERISTICS -

STURDY LARGE CASE – SUITCASE STYLE
HEAVY – 20 – 30 POUNDS
MONITOR
KEYBOARD
DISK DRIVES FOR STORAGE
POWER SUPPLY
MAINBOARD – “MOTHERBOARD”
[IN CASE NOT KEYBOARD – E.G. TRS-80]

SOFTWARE

OSBORNE & KAYPRO PROVIDED WHOLE SUITE COMMON PROGRAMS –

**WORD PROCESSING, SPELL CHECK,
DATABASE, SPREADSHEET,
PROGRAMMING IN BASIC,
COMMUNICATION, GAMES, ETC.**

COMPAQ DID NOT

IT WAS IBM COMPATIBLE, SO LOT OF SOFTWARE ALREADY AVAILABLE

BUT DID PROVIDE LOTUS SYMPHONY -
ONLY SPREADSHEET, WORD
PROCESSOR & COMMUNICATION
– BUT **NOT** BIG SUCCESS!

BESIDES JUST USUAL OPERATING
MANUALS

**WHAT THEY DID “NOT” HAVE THAT WE
TAKE FOR GRANTED TODAY –**

**MOUSE – ONLY KEYBOARD TO
COMMUNICATE WITH IT**

**CD / DVD DRIVE – ONLY 2 DISK DRIVES
OF ONLY 191K OR 320K CAPACITY**

**HARD DRIVE – SO NO PRELOADED
OPERATING SYSTEM & SOFTWARE**

**NO VIRUSES! [YET! – APPLE
DISCOVERED 3 VIRUSES IN 1981
THAT CAME WITH SOME GAMES
THAT WERE INCLUDED IN THEIR
OFFERING]**

**FEW REMOTE BULLETIN BOARDS TO CONTACT
BY MODEM [EXTERNAL ACOUSTIC COUPLER] –
ONLY ABOUT 200 IN EARLY 1980'S**

**NO REAL GRAPHICS OR COLOR – BUT
COMPAQ DID HAVE SOME GRAPHICS**

NO WINDOWS – ONLY “TEXT ON SCREEN”

**YOU HAD TO “MEMORIZE” SOFTWARE
COMMANDS OR USE COMMAND LISTS –**

**NO PULL DOWN MENUS LIKE IN WINDOWS
FOR COMMANDS**

DIFFERENCES -

KAYPRO HAD ALUMINUM METAL CASE – MORE RUGGED & MINIMIZED INTERFERENCE WITH OTHER ELECTRICAL DEVICES [FCC CONCERNS – E.G., RADIO SHACK HAD TO EVENTUALLY RECALL ALL TRS-80'S]

BUT EXPOSED COOLING VENT HOLES IN METAL CASE COULD LET THINGS FROM ENVIRONMENT INTO IT [E.G., RAIN, SNOW, DUST, DIRT, BUGS, ETC.].

* **KAYPRO** ALSO HAD KEYBOARD, SERIAL & PARALLEL PORTS EXPOSED ON THE BACK OF CASE.

* BUT SEVERAL VINYL & NYLON OUTER COVERS / CARRYING CASES AVAILABLE FOR SOME PROTECTION

* **OSBORNE** HAD A VERY SMALL **5"** **DIAGONAL SCREEN** AS OPPOSED TO THE LARGER **9"** SCREEN.

* BUT APPLE MACINTOSH HAS A **9"** SCREEN! SO THIS SIZE IS ACCEPTABLE EVEN TODAY!

OSBORNE ALSO DID **NOT** HAVE A
DETACHABLE KEYBOARD, BUT
OTHER 2 DID.

COMPAQ MADE IT MORE DIFFICULT
TO LOSE THE COILED KEYBOARD
CONNECTING CABLE BY MAKING IT
RETRACTABLE.

**MISPLACING OF THIS CABLE A
USUAL OCCURRENCE FOR MANY
KAYPRO OWNERS!**

**KAYPRO & OSBORNE HAD EXTENSIVE
“BUNDLED” SOFTWARE – EQUAL TO
PRICE OF TOTAL SYSTEM**

COMPAQ DID NOT

HOW COULD THEY DO THIS?

**OSBORNE INDICATED THEY GAVE STOCK
TO THE SOFTWARE COMPANIES & VERY
SMALL FEE PER COMPUTER FOR USING
THEIR SOFTWARE**

SALES / LOSS

ULTIMATE SUCCESS / FAILURE

LIKE RELAY RACE –

**PARTICIPANTS KEEP HANDING OFF TO
THEIR NEXT TEAM MATE **EVER MORE
IMPROVED COMPUTER MODELS****

NO FINISH LINE

SO NOBODY FINISHES

ONLY JUST DROP OUT

NEW ONES CONTINUALLY ENTER

SOME EARLIER AND SOME LATER

NOT FOR THE “FAINT HEARTED!”

**TAKES A VERY SPECIAL COMPANY &
VERY SPECIAL PEOPLE TO EVEN BE
SIGNIFICANT PLAYER**

**VERY SIMILAR TO THOSE WHO GO
INTO THE SMALL FARM TYPE WINERIES
SO POPULAR TODAY [AN AREA OF MY
PARTICULAR EXPERIENCE & EXPERTISE]**

HOW TO MEASURE SUCCESS?

CAN BE BASED ON MANY FACTORS – LONGEVITY, QUALITY, PROFITABILITY, HIGH IDEALS, PERSONALITIES, FILLING CONSUMER NEEDS / WANTS / DESIRES, UNIQUE – INNOVATIVE PRODUCTS, ETC.

BUT -

**OSBORNE ONLY LASTED ABOUT
3 YEARS BEFORE BANKRUPTCY FILING**

**KAYPRO LASTED ABOUT 7 YEARS BEFORE
FILING BANKRUPTCY**

**COMPAQ CONTINUED VERY SUCCESSFULLY
FOR MANY YEARS - RECENTLY BECAME
PART OF HP AFTER VERY CONTROVERSIAL
& CONTENTIOUS “**COURTING PHASE
& EVENTUAL MARRIAGE CEREMONY!**”**

FINANCING WAS MADE POSSIBLE BY
RELATIVELY NEW RISING PHENOMENON
AT THAT TIME –

VENTURE CAPITALISTS

1983 WAS A “BOOM YEAR”

HOW FORTUITOUS FOR THE PPC INDUSTRY.

MUCH DEPENDED ON LONG TERM
“GOOD RESULTS” BY THE PPC INDUSTRY

KEEPING INVESTORS HAPPY WITH
CONTINUAL FLOW OF GOOD NEWS / PR
ESSENTIAL TO MAINTAIN CONFIDENCE

SOME SETBACKS WERE EXPECTED &
UNDERSTOOD

CONSUMERS ALSO TARGETS OF SUCH
GOOD NEWS TO KEEP THEM BUYING

OVERALL, ALL 3 COMPANIES DID SOME FINE WORK & VERY SENSITIVE TO NEEDS OF INVESTORS & CUSTOMERS

BUT AS IN MOST HUMAN ENDEAVORS, SOME “SLIPPAGE**” ACCUMULATED & BECAME **DECISIVE FACTORS** IN ULTIMATE SUCCESS OR FAILURE OF PERSONALITIES, PRODUCTS & COMPANIES.**

STRONG & CHARISMATIC, BUT **FALLIBLE,
PERSONALITIES WERE ESSENTIAL IN MANY
OF THESE ENDEAVORS.**

DO YOU REALLY **BELIEVE IN “THE PERSON”
BEHIND THE COMPANY?**

**SO PUBLIC RELATIONS BECAME AN EVER
MORE IMPORTANT FACTOR IN THE SUCCESS
OR FAILURE OF PRODUCTS & COMPANIES.**

IT DOES NOT HAVE TO BE TRUE

**EVEN IF THE FACTS CLEARLY PROVE
OTHERWISE**

PEOPLE HAVE TO BELIEVE IT

EVEN IF THE FACTS ARE QUESTIONABLE

SOME

HARD

DATA

TO

CONTEMPLATE

**“SNAPSHOT” OF THE BEST COMPUTER
SELLERS BY CATEGORY FROM OCTOBER
1985 TO NOVEMBER 1986 [14 MONTHS]**

**THE HEIGHT OF THE FRANTIC COMPETITION
IN THE COMPUTER INDUSTRY ESPECIALLY
FOR PPC'S.**

OSBORNE WAS ALREADY OUT OF BUSINESS

**IBM AND APPLE WERE DOMINANT -
AVERAGE 58%**

KAYPRO'S AVERAGE ABOUT 6%

COMPAQ'S AVERAGE ONLY 3%

THE REST, ON AVERAGE OF ABOUT 27%,

**INVOLVED A LOT OF OTHER SMALL,
RELATIVELY UNKNOWN COMPUTER
COMPANIES **ALL DESPARATELY FIGHTING**
FOR MARKET SHARE & SURVIVAL!**

**SO THE COMPUTER INDUSTRY WAS STILL
IN GREAT STATE OF FLUX FOR WHO WOULD
STAY IN THE “RELAY RACE,” ON WHAT
BASIS & FOR HOW LONG, BEFORE THEY
TOO EVENTUALLY DROPPED OUT.**

WHY SUCCESS OR FAILURE?

MANY COMPLEX FACTORS, AS IN MOST
HUMAN ENDEAVORS

THIS TALK CAN ONLY CITE SOME MAJOR
ASPECTS

MY FULL PAPER ON TCF CD DIGEST
GOES INTO MANY MORE SPECIFICS IN
GREATER DETAIL

MY INTERPRETATION OF DATA

MY CONCLUSIONS

DO YOUR OWN RESEARCH

**YOU MAY COME UP WITH DIFFERENT
CONCLUSIONS**

SOME “POSITIVES”

ALL 3 COMPANIES -

**HIGHLY QUALIFIED & EXPERIENCED
PEOPLE**

**VERY GOOD & INNOVATIVE
PRODUCTS**

INITIAL FANTASTIC SUCCESS

TRIED VERY HARD!

**LITTLE IF ANY REALLY INTENTIONAL
“BAD DECISIONS” BY PEOPLE ACTING
“IRRATIONALLY”**

**BUT MANY OTHER COMPUTER COMPANIES
DID MAKE INTENTIONAL BAD DECISIONS &
ACTED IRRATIONALLY - AS NOTED IN MANY
BOOKS**

**ONE IN PARTICULAR –
“ACCIDENTAL EMPIRES”
BY ROBERT CRINGELY**

{“RAMPANT INSANITY RAGING???”}

FOR OSBORNE & KAYPRO –

**MANY DECISIONS, IF NOT ALMOST ALL,
MADE BASED ON BEST DATA AVAILABLE
AT THE TIME & WERE BELIEVED TO BE
CORRECT **AT THAT TIME, UNDER THOSE**
SPECIFIC CONDITIONS**

BUT A “NEW INDUSTRIAL ERA”

NEW PRODUCT

NEW MANUFACTURING PROCESS

NEW MANAGEMENT REQUIRED

CRITICAL DECISIONS HAD TO BE
MADE **VERY FAST**

LITTLE ROOM FOR ERROR

OSBORNE’S **“HYPERGROWTH”**

THEY WERE IN “UNCHARTED WATERS”

THERE WERE NO PREVIOUS “CASE STUDIES”
TO GO TO FOR GUIDANCE

NOBODY HAD EXPERIENCED SUCH
“HYPERGROWTH” IN SUCH FAST MOVING
COMPLEX TECHNICAL AREAS PREVIOUSLY.

BUT WHAT DOES “HYPERGROWTH”
REALLY MEAN?

ONE EXAMPLE MAY BE VERY USEFUL -
MANY COMPUTER COMPANIES MENTION -

10,000 COMPUTERS “ORDERED” / MADE /
SHIPPED / MONTH

SO \$ THERE!!!

BUT CAN YOU FILL DEMAND?

330 / DAY - 14 / HOUR - *1 / 5 MINUTES*****

[3 SHIFTS 8 HOURS EACH – NO BREAKS!]

ALL DAY/ EVERY DAY – “24 / 7”

SUCCESSFUL DETAILED IMPLEMENTATION -

BESIDES LABOR & FACILITIES

“LOGISTICS” ALONE CAN BE DAUNTING!

BASIC COMPONENTS –

**MONITOR, KEYBOARD, POWER SUPPLY,
DISK DRIVES, MAIN BOARD, ETC.**

ALL ASSEMBLED & TESTED CORRECTLY

AS ACCEPTABLE – QUALITY CONTROL!

PACKAGED / SHIPPED

**MANAGE SALES & \$ - DEALERS, MARKETING,
ORDERS, PACKAGING, SHIPPING, SUPPORT,
SERVICE, SOFTWARE, ORDER COMPONENTS/
SUPPLIES, ETC.**

**BUT THEY DID NOT GO DOWN EASILY
OR WILLINGLY!**

**MANY DECISIVE, CREATIVE &
EXTRAORDINARY ACTIONS WERE
TAKEN TO TRY TO TURN THE TIDE,
IN THE MOST PURE & IDEALISTIC
MOTIVATIONS IN MANY CASES.**

SOME WORKED & SOME DID NOT.

**OVERALL, IN THE LONG RUN, IT JUST
WAS NOT TO BE.**

**THE DECK WAS TOO STACKED
AGAINST THEM IN TOO MANY WAYS.**

**HOWEVER, THERE ARE TIMES
“TO CONTINUE TO FISH & THERE
ARE TIMES TO JUST CUT BAIT &
MOVE ON.”**

**OVERALL, MANY INVOLVED FINALLY
REALIZED THIS & **MOVED ON** WITH
THEIR LIVES, MANY BEING VERY
SUCCESSFUL IN OTHER AREAS OF
LIFE AND BUSINESS.**

**MY DECADES OF STS RESEARCH INDICATES
THERE ARE PATTERNS IN MANY INDUSTRIES,
ESPECIALLY THOSE INVOLVED WITH HIGHLY
SCIENCE & TECHNOLOGICAL INTENSIVE
COMPANIES.**

**MANY REASONS ARE INVOLVED & MANY
REASONS ARE VERY SPECIFIC TO A
PARTICULAR INDUSTRY & ONLY RECOGNIZED
MANY YEARS AFTER THE FACT, SOME MAY
NEVER BE RECOGNIZED.**

**SOME THINGS ARE UNDER YOUR CONTROL,
BUT MANY ARE **NOT**.**

SOME ARE JUST NOT KNOWN AT THAT TIME

**SOME ARE JUST A MATTER OF JUDICIOUS
TIMING & JUST PLAIN LUCK**

**“BEING AT THE RIGHT PLACE AT THE
RIGHT TIME”**

**“CHANCE FAVORS THE PREPARED MIND!”
[PASTEUR]**

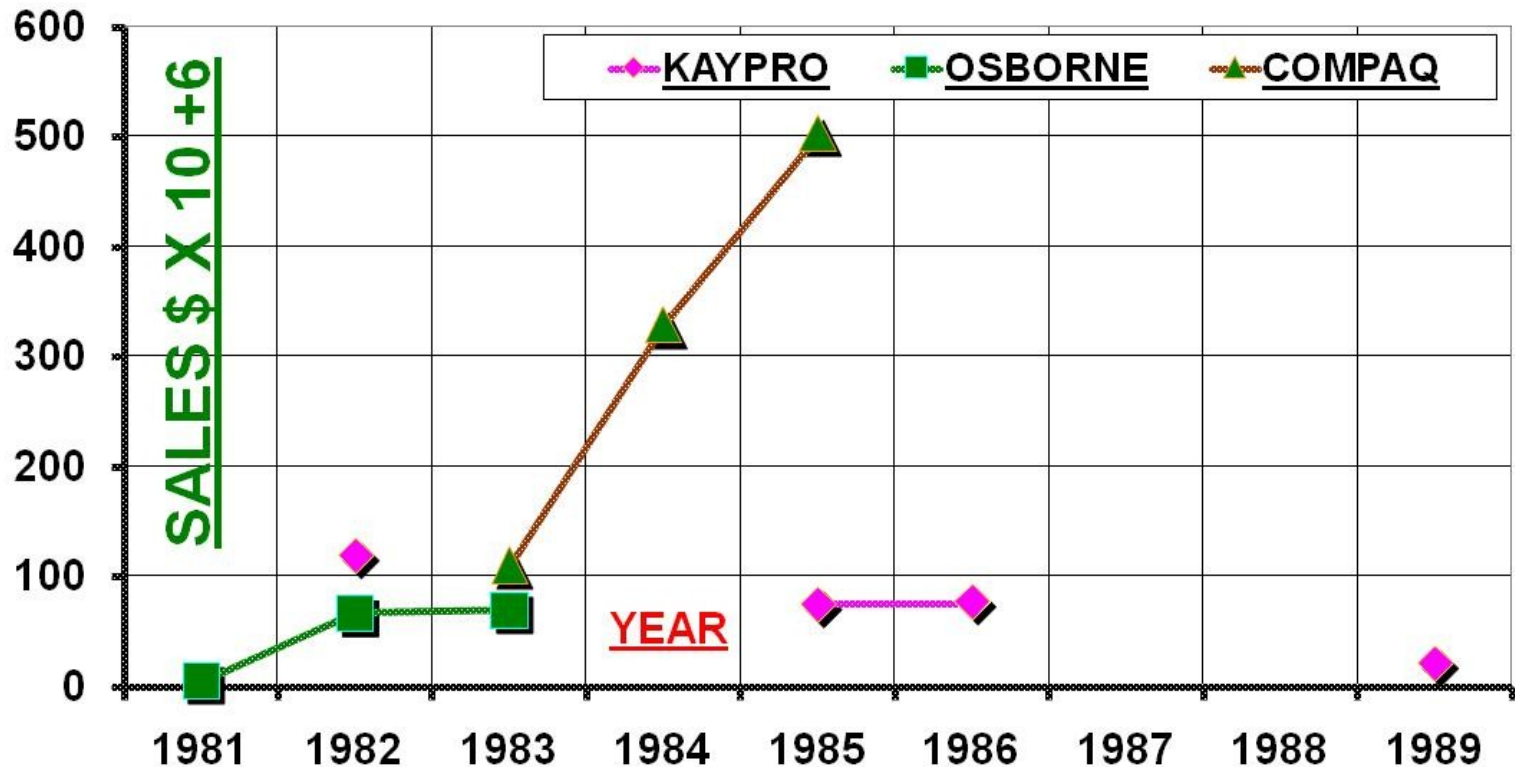
SOME SPECIFIC DATA

TO LOOK AT

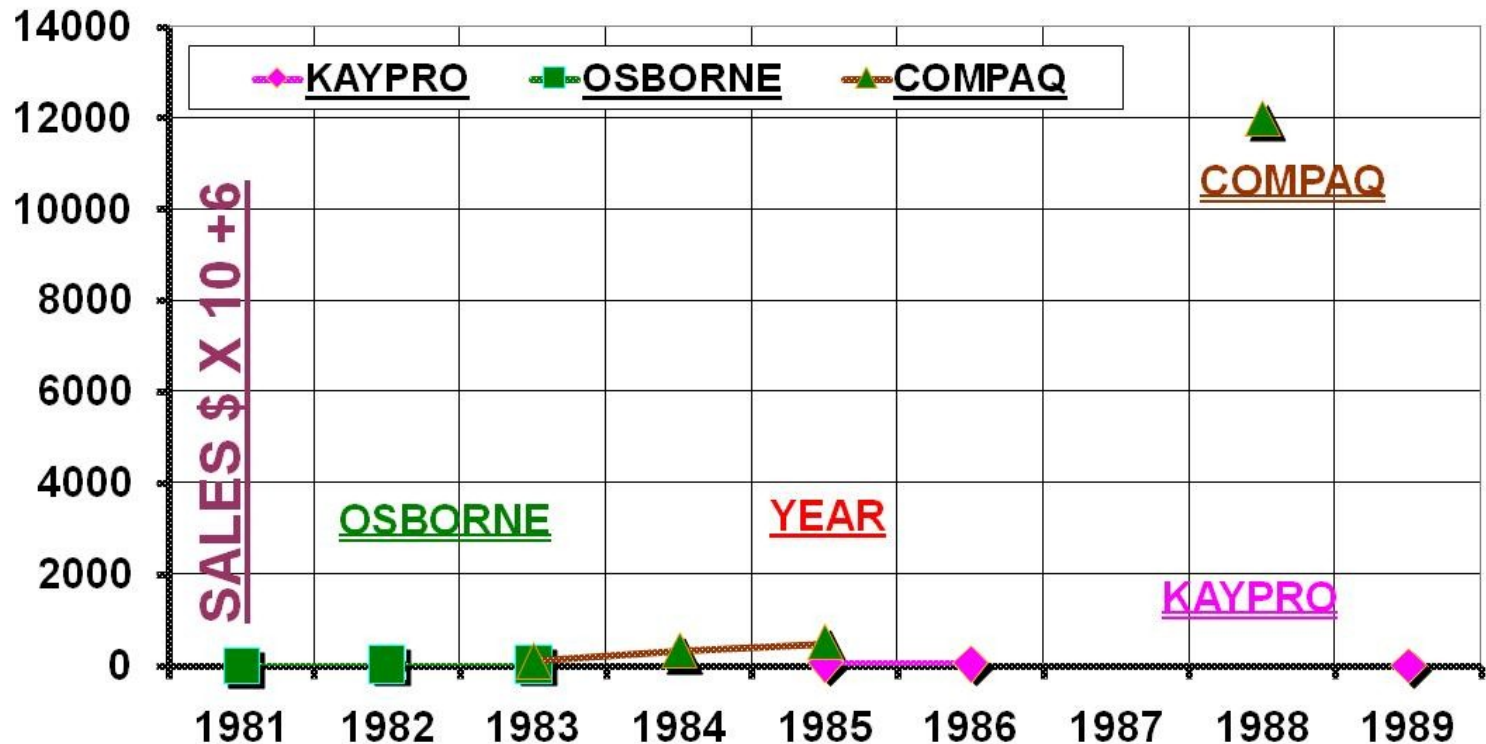
& INTERPRET

SALES

SALES 3 MAIN PPC COMPANIES 1980'S [BUT NOT COMPAQ 1988 \$12 BILLION]



SALES 3 MAIN PPC COMPANIES 1980'S [INCLUDES 1988 COMPAQ \$12 BILLION]



BUT

SALES

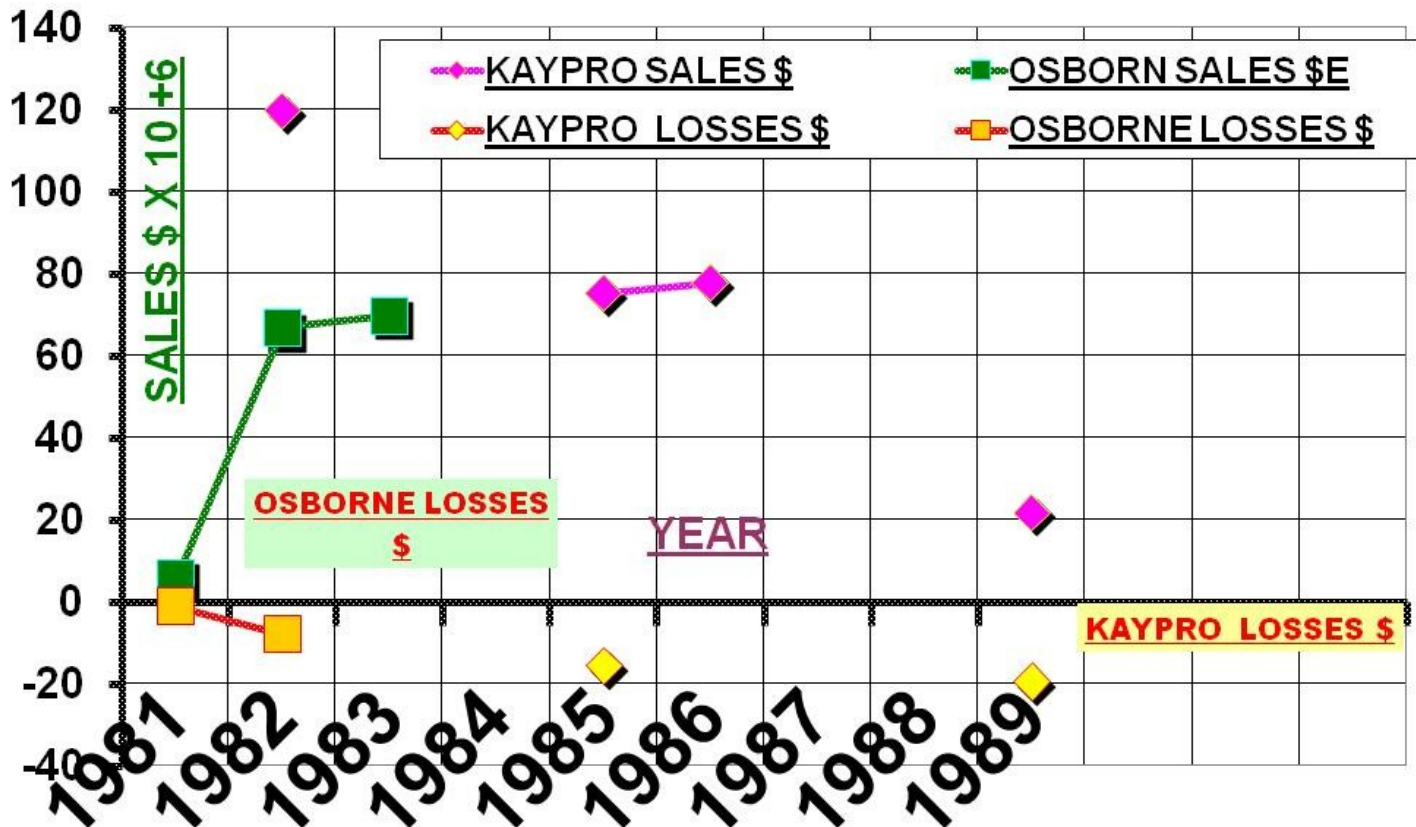
&

LOSSES

[INPUT & OUTPUT]

{PROFITS???

SALES & LOSSES ONLY OSBORNE & KAYPRO PPC COMPANIES 1980'S [COMPAQ HAD NO LOSSES]



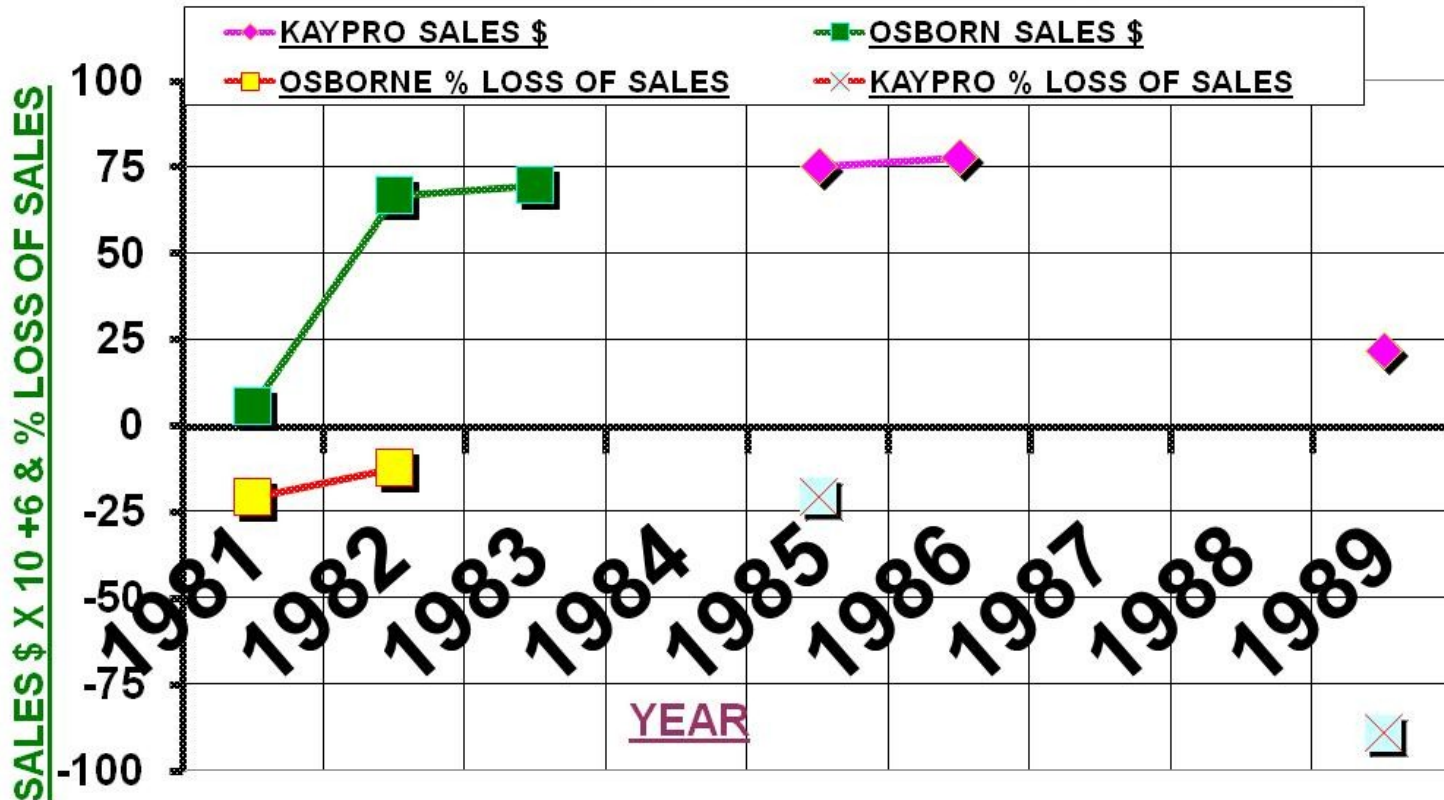
LOSSES

AS “%” OF

SALES

**[WHAT ARE YOU
GETTING FOR
ALL YOUR EFFORT?]**

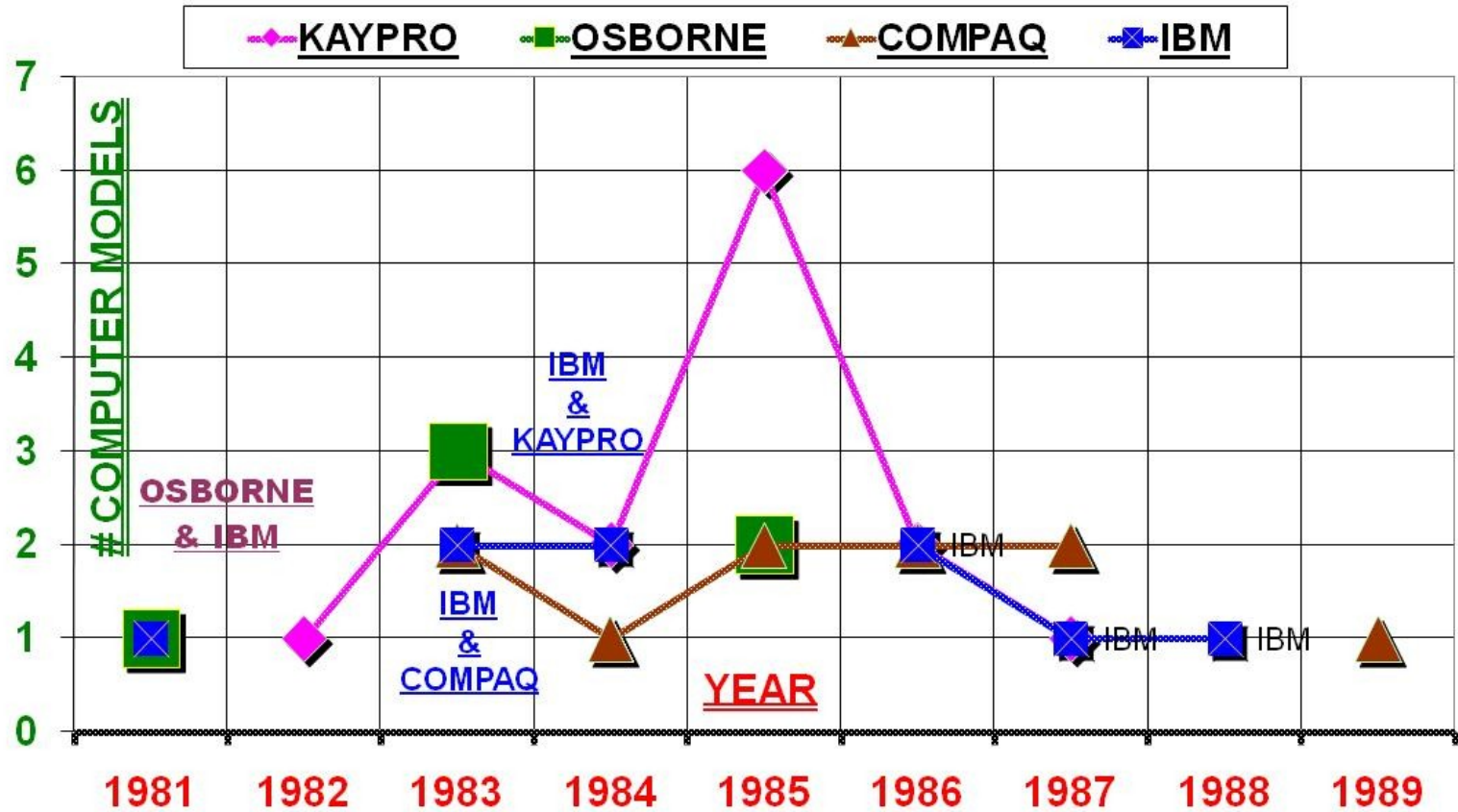
SALES & LOSSES JUST OSBORNE & KAYPRO PPC COMPANIES 1980'S [NOT COMPAQ - HAD NO LOSSES]



ANOTHER SIGNIFICANT FACTOR

“#” DIFFERENT
COMPUTER
MODELS
MADE EACH YEAR

4 MAIN PPC PLAYERS - # COMPUTER MODELS PRODUCED



SO “MY TAKE” ON OSBORNE & KAYPRO
ARE AS FOLLOWS FROM THE DATA I FOUND

OSBORNE

“THINGS JUST MOVED TOO FAST!”

THERE WAS LITTLE TIME TO
ADEQUATELY ADJUST

THEY ONLY LASTED LESS THAN
3 YEARS

IN A FAST MOVING INDUSTRY, HOW DO
YOU EVEN DETECT IMPORTANT
CHANGES, SINCE YOU ARE SO
BUSY MANAGING SUCH A
SUCCESSFUL BUSINESS?

**EVEN IF YOU DETECT THESE CHANGES,
HOW DO YOU ANALYZE IT & DEVELOP
AN APPROPRIATE “ACTION PLAN”
FAST ENOUGH, BESIDES “PROPERLY
IMPLEMENTING” IT FAST ENOUGH?**

ADAM OSBORNE KNEW HE NEEDED A
PROFESSIONAL & EXPERIENCED
MANAGER – HE KNEW HE WAS
NOT THAT PERSON

**HE HAD DIFFICULTY ATTRACTING SUCH
PEOPLE TO SUCH A NEW & UNKNOWN
INDUSTRY**

**HE GOT THE BEST HE COULD UNDER THE
CIRCUMSTANCES**

**BUT HIS SELECTION PROVED VERY
CONTROVERSIAL**

**READ HIS BOOK ON “HYPERGROWTH”
FOR MORE SPECIFICS**

OSBORNE COMPANY DID COME OUT OF
BANKRUPTCY IN 2 YEARS [1985]
& HAD SOME NEW PRODUCTS,
BUT ITS TIME HAD PASSED

CERTAINLY DIRECT COMPETITION FROM
KAYPRO DID NOT HELP

BUT **COMPAQ** WAS WELL ON ITS WAY TO
CONTINUED FANTASTIC SUCCESS
BY 1985 – FAR OUTDISTANCING
BOTH OSBORNE & KAYPRO

**THERE WERE EVEN SOME INDICATIONS
THAT SOME THINGS AT OSBORNE MAY
HAVE BEEN IMPROVING IN THE **LAST**
FEW MONTHS IN **1983** BEFORE
BANKRUPTCY WAS FILED**

**PERHAPS, EVEN A FEW MORE MONTHS
MAY HAVE MADE A DIFFERENCE.**

HOWEVER, EVEN IF IT DID, AGAIN, **COMPAQ
WAS SO FAR AHEAD, OSBORNE WOULD
HAVE HAD AN INCREDIBLE CHALLENGE
TO EVEN **JUST CONTINUE TO SURVIVE!****

KAYPRO

DATA INDICATE THAT IN 1985 KAYPRO
HAD SOME SERIOUS DIFFICULTIES
THEY DID SEEM TO START TO RECOVER
BUT IN 1989 THEY LOST ALMOST ALL
THEY EARNED [-89%]
THEY FILED FOR BANKRUPTCY THE NEXT
YEAR 1990 & DID NOT COME OUT OF IT
ASSETS WERE EVENTUALLY SOLD FOR
ABOUT 10 ¢ ON \$1 IN 1995
– AS IN MANY SUCH CASES.

THEY LASTED LONGER THAN OSBORNE
– **7 VERSUS 3 YEARS** – SO THEY HAD
MORE TIME TO TRY TO ADJUST
HOWEVER, THEY MAY HAVE **TRIED**
TOO HARD!

IN **1986**, RECOVERING FROM **1985**, THEY
INTRODUCED AN ASTOUNDING **“6”**
NEW COMPUTERS **IN JUST 1 YEAR!**
3 OTHER COMPANIES INTRODUCED **1- 3 / YEAR**
THEIR **OVERALL INTRODUCTION** OF NEW
COMPUTERS WAS THE **HIGHEST** OF
ALL 4 COMPANIES – **2.5 / YEAR**
VERSUS **1.2 TO 1.7 / YEAR**

BESIDES DEVELOPMENT & MANUFACTURING COSTS INVOLVED WITH SO MANY COMPUTER MODELS, **PAST & PRESENT, SUPPORT OF SUCH A LARGE NUMBER OF COMPUTER MODELS CAN ALSO BE A SUBSTANTIAL CHALLENGE –**

**SPARE PARTS
INEVITABLE “BUGS” TO FIX
SHIPPING
MARKETING / SALES
ETC.**

THE DATA ALSO INDICATE THAT THEY CONTINUED TO BE HEAVILY DEPENDENT ON CP/M OPERATING SYSTEM COMPUTERS, EVEN THOUGH IBM COMPATIBLE COMPUTERS, NOT USING CP/M, BUT RATHER PC-DOS / MS-DOS OPERATING SYSTEMS WERE CLEARLY PREFERED BY CUSTOMERS

60% OF ALL KAYPRO COMPUTERS WERE CP/M BASED – INCREDIBLY SUCCESSFUL COMPAQ HAD NO “ONLY” CP/M BASED COMPUTERS & NEITHER DID IBM

EVEN IN 1986 KAYPRO STILL OFFERED
A “NEW” [?] CP/M BASED COMPUTER

MAYBE THIS WAS JUST TO USE UP
SPARE CP/M COMPUTER PARTS &
INCREASE MUCH NEEDED “CASH FLOW”

OSBORNE MAY HAVE ALSO BEEN TRYING
TO DO THIS JUST BEFORE FILING FOR
BANKRUPTCY IN 1983

**KAYPRO DID BEGIN TO MAKE IBM
COMPATIBLE COMPUTERS AFTER
A SLOW START – NOTE THAT THIS CAN
BE JUST MONTHS NOT YEARS IN SUCH
A FAST PACED INDUSTRY!**

**DAVID KAY MAINTAINED THEY WERE
THE ONLY COMPANY TO MAKE
TRANSITION FROM CP/M
TO MS-DOS / PC-DOS – THE OTHER
COMPANIES WENT BANKRUPT**

**INDEED KAYPRO BEGAN OFFERING IBM
COMPATIBLE COMPUTERS IN 1985**

**ONLY 2 YEARS AFTER COMPAQ OFFERED
THEIR FIRST IBM COMPATIBLE
PPC IN 1983**

**IN FACT, KAYPRO OFFERED FIRST IBM
COMPATIBLE “LAPTOP” IN 1985**

BUT NOT SUCCESSFUL FOR MANY REASONS

OVERALL KAYPRO –

WAS SLOW TO OFFER IBM COMPATIBLE
COMPUTERS

STAYED WITH CP/M COMPUTERS TOO LONG

MADE TOO MANY DIFFERENT COMPUTER

MODELS TOO FAST

HAD SOME SERIOUS MANAGEMENT ISSUES

ADJUSTING TO THE NEW

“HYPERGROWTH” DEMANDS

OF THIS NEW INDUSTRY

COMPAQ JUST GOT TOO FAR AHEAD TOO

FAST!

NOTE – ON BALANCE

THE CP/M ISSUE IS “VERY COMPLEX”

IT WAS WELL KNOWN, ESTABLISHED,
TESTED & WIDELY USED

MS-DOS / PC-DOS WAS NOT

IT WAS NEW – “UNTESTED” – BY A
NEWCOMER TO COMPUTING

– BILL GATES!

THIS IS A GOOD AREA FOR FURTHER
EXPLORATION

UNLIKE OSBORNE

**KAYPRO HAD PROGRESSIVE, SUCCESSFUL
& EFFECTIVE MANAGEMENT STYLE**

**FAMOUS ABRAHAM MASLOW, “FATHER OF
ENLIGHTENED MANAGEMENT”**

**SPENT SABBATICAL LEAVE STUDYING
KAYPRO’S INNOVATIVE MANAGEMENT
STYLE DEVELOPED BY **ANDY KAY** & WAS
VERY IMPRESSED.**

HE EVEN PUBLISHED A BOOK ON IT!

**HOWEVER THIS JUST
EMPHASIZES HOW DIFFERENT
“HYPERGROWTH” WAS
OLD SUCCESSFUL MANAGEMENT
JUST DID NOT WORK
WITH “HYPERGROWTH”
DAVID KAY, ANDY’S SON, EVEN
ADMITTED HIS FATHER WAS SLOW TO
CHANGE FROM PREVIOUSLY
ESTABLISHED SUCCESSFUL WORKING
MANAGEMENT METHODS**

**HOWEVER, WITH COMPAQ DOING SO
CONSISTENTLY WELL – CONTINUALLY
BREAKING ALL PAST RECORDS IN
THE INDUSTRY**

**IT WOULD HAVE BEEN VERY DIFFICULT
FOR ANY COMPUTER COMPANY TO
“TRY TO CATCH UP”**

**SO NONE DID & MANY MAY NOT HAVE
EVEN TRIED VERY HARD!**

COMPAQ SUCCESS

NOT MUCH WAS FOUND SPECIFICALLY

**OBVIOUSLY, DECIDING TO GO WITH IBM
COMPATIBLE & NOT CP/M WAS
A MAJOR FACTOR**

**HAD OPPORTUNITY TO LEARNED
FROM OSBORNE & KAYPRO
EARLY MISTAKES SINCE
STARTED LATER OF COURSE**

* **IN BANKRUPTCY** A LOT CAN BE REVEALED ABOUT WHAT WENT **RIGHT & WRONG** IN A COMPANY

* **FOR A SUCCESSFUL COMPANY** - IT IS CRITICAL THAT SUCH INFORMATION IS **NOT REVEALED** BECAUSE OF TRADE SECRETS, COMPETITIVE ADVANTAGE, CONFIDENTIALITY AGREEMENTS, ETC.

* SO FOR **COMPAQ** BEING SO SUCCESSFUL FOR SO LONG, WE MAY NEVER KNOW MANY OF THE **“INSIDE DETAILS”** THAT MADE IT SO INCREDIBLY SUCCESSFUL FOR SO LONG

* COULD THINGS HAVE BEEN DONE DIFFERENTLY? SURE!

* COULD OTHERS HAVE DONE BETTER? MAYBE!

* BUT OVERALL, WHAT DIFFERENCE WOULD IT HAVE MADE?

* COMPAQ HAD THE MARKET & WAS ASTOUNDINGLY SUCCESSFUL ON A CONTINUAL LONGTERM BASIS

* TIME TO “**BAIL OUT!**” & MOVE ON TO OTHER MORE REALISTIC ENDEAVORS

& THEY DID! [EVEN IBM!]

OVERALL BOTTOM LINE –

“VERY CLEAR & DECISIVE”

COMPAQ WON!

**NO CONTEST ONCE
THEY STARTED**

NOT EVEN CLOSE

NO HOPE FOR ANY CHANGE

ON A MORE PERSONAL NOTE –

LONG TIME LOYAL KAYPRO USERS
WERE IN A “STATE OF SHOCK” THAT
THEIR TRUSTED KAYPROS WERE
NOW **NOT SUPPORTED** BY KAYPRO,
SINCE THEY WERE OUT OF BUSINESS

HOW TO MANAGE?

**THIS IS DELINEATED IN THE FULL PAPER,
ALONG WITH “SOME LESSONS LEARNED”
FOR MANAGING OUR COMPUTER SYSTEMS
TODAY**

TODAY – IN BRIEF

ADAM OSBORNE – DIED IN INDIA IN 2003

AT AGE 64 – HE WAS KEYNOTE

SPEAKER AT TCF IN 1981

OSBORNE COMPUTER NAME BOUGHT
BY SWEDISH FIRM & STILL MARKETS
COMPUTERS UNDER THAT NAME

KAYPRO – ANDY KAY IN HIS 80'S STILL

SELLS COMPUTERS - KAY COMPUTER

WEB SITE SHOWS 3 WINDOWS XP
MODELS & A SERVER – FOR SMALL
LOCAL MARKET – STILL STRESSES
RUGGEDNESS & HIGH RELIABILITY

COMPAQ – NOW PART OF HP

IBM – SOLD PC BUSINESS TO CHINESE
COMPANY & NOW BACK TO
CONCENTRATING ON MAINFRAMES

AS ALAN KAY [NOT “ANDY” KAY OF
KAYPRO] SAID SO EARLY IN THE
COMPUTER ERA,

“THE BEST WAY TO PREDICT
THE FUTURE IS TO INVENT IT!”

SO STAY IN CONTROL
AS MUCH AS POSSIBLE
IN YOUR COMPUTER
ACTIVITIES

**& SO IT
GOES!**

STAY TUNED!!!